# RESULTS

OF

# OBSERVATIONS OF THE FIXED STARS

MADE WITH THE

# MERIDIAN CIRCLE

AT THE

# GOVERNMENT OBSERVATORY, MADRAS,

IN THE YEARS

1862, 1863 AND 1864,

UNDER THE DIRECTION OF

NORMAN ROBERT POGSON,

C.I.E., F.R.A.S., & F.M.U.

GOVERNMENT ASTRONOMER AT MADRAS.

*PUBLISHED BY ORDER OF THE GOVERNMENT OF MADRAS.*

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# CONTENTS.


| | Page. |
|---|---|
| Dedication ... | i |
| Introduction ... | iii |
| Buildings ... | v |
| The Meridian Circle ... | viii |
| Clocks and Chronograph ... | xii |
| Objects selected for Observation with the Transit Circle ... | xiii |
| Observations ... | xv |
| Reduction of the Observations ... | xvi |
| Instrumental Corrections adopted in 1862 ... | xix |
| Instrumental Corrections adopted in 1863 ... | xxiv |
| Instrumental Corrections adopted in 1864 ... | xxxiii |
| Separate Results of Observations ... | xli |
| Mean Positions of Stars observed in each year ... | xlii |
| Other Observations with the Meridian Circle ... | xlii |
| Comparison of Madras Mean Positions with the N. A. for 1862, 1863 and 1864 ... | xliii |
| Errata ... | xlvii |
| Separate Results of Observations in 1862 ... | 1 |
| Mean Positions of Stars for 1862, January 1st ... | 29 |
| Separate Results of Observations in 1863 ... | 45 |
| Mean Positions of Stars for 1863, January 1st ... | 117 |
| Separate Results of Observations in 1864 ... | 165 |
| Mean Positions of Stars for 1864, January 1st ... | 251 |
| Distribution List of Institutions and Individuals to whom copies of the Madras Astronomical Observations are presented by the Government of Madras ... | 311 |

To

THE RIGHT HON'BLE SIR MOUNTSTUART ELPHINSTONE GRANT DUFF,

LATE GOVERNOR OF MADRAS, G.C.S.I, C.I.E., F.R.S., M.A., &c., &c.

HONORABLE SIR,

The present volume, the first of a new series of Madras Observations, was intended to have been issued long before your retirement from the high and distinguished office of Governor of Madras, and was by your kind permission to be specially dedicated to you, whose discerning, enlightened and liberal views in regard to the encouragement of science, alone enabled me to commence publication, by the removal of certain arbitrary and suppressive restrictions which have prevented me and my predecessors from attempting anything of the kind for considerably more than thirty years past.

Without prompt publication of results, scientific researches in general, and above all astronomical observations, are comparatively useless. I came to India deeply impressed with this view, and with the full intention of bringing out an annual volume, and now that you Sir have rendered this possible, and I have every reason to feel assured that your successors in office will continue the valued privilege which you first saw fit to concede to the Madras Astronomer, *viz.*, the right of distribution of his publications, enjoyed by every other astronomer in the world but so long disallowed at Madras; the one Observatory of India will, I hope, speedily recover its prestige and remain an enduring evidence of one of the many benefits conferred upon Southern India, during your regime as Her Majesty's representative at Madras.

With grateful recollections of past kindness and best wishes for your health, happiness and future well earned distinctions,

I remain, Honorable Sir,

Your most obedient Servant,

N. R. POGSON.

# INTRODUCTION.

Meridional observations were commenced at the Madras Observatory on January 9th, 1793, with a little twenty-inch transit instrument, by Stancliff, and a twelve-inch altitude and azimuth instrument, by Troughton; neither of them bearing an object glass of so much as an inch and a half in aperture. With these diminutive appliances the work of the Observatory was carried on until the year 1829. The records of the first nineteen years were simply copied out and transmitted to the Honorable Board of Directors of the East India Company. Those from 1812 to 1825 were published in two bulky folio volumes, but consisted only of unreduced observations of the Sun, Moon, old planets and brighter fixed stars. These two volumes were published by the Honorable Company's Astronomer, Mr. J. D. Goldingham, as Volumes 3rd and 4th, with a view to the previous records being subsequently printed, an arrangement which however was never carried out.

An important step in the history of the Observatory was made in the year 1830, when a five-foot Transit Instrument and a four-foot Mural Circle, both by Dollond, with object glasses of nearly four inches aperture, were erected under the superintendence of Mr. T. G. Taylor, one of the most able and energetic astronomers of his day. With these instruments, the celebrated "*Madras Catalogue*," containing positions of 11,015 stars reduced to the Epoch 1835, was accomplished between the years 1831 and 1843, and in spite of its weakest points, large instrumental errors of an unexpected nature in the Mural Circle, which Mr. Taylor did his best to eliminate before printing his final catalogue, its value at the present date may be inferred from the circumstance of a new edition being now called for by European astronomers. It is scarcely necessary to mention that I shall respond to this call with great pleasure as soon as the results of my own labors have been laid before the world, and time permits of the investigation of the remaining errors, both casual and systematic, which still require correcting in the former catalogue. The addition of the mean dates of observation in each co-ordinate, which will of course entail reference to every individual observation upon which the final star positions are based, is also a matter of such importance that there could be no excuse for its omission in case of a second edition of the Catalogue.

The Transit Instrument and Mural Circle were next employed, between 1849 and 1852, in the revision of 1440 stars of the British Association Catalogue, under the direction of Captain W. S. Jacob, Bombay Engineers; the results being published in Vol. VIII of the second series of Madras Observations.

A considerable number of star observations, made with the same instruments between 1853 and 1858, under the superintendence of Captain Jacob and of Major W. K. Worster, Madras Artillery, but only partially reduced to apparent places, will, when completed, form another catalogue of about 2,200 stars, for the epoch 1855. A selection of 317 of these stars, suspected of large proper motion, was printed in the "*Memoirs of the Royal Astronomical Society*", Vol. XXVIII.

There are also 1,331 observations of the Sun, 345 of the Moon, 1,680 of the principal planets and 333 of various minor planets, made with the old instruments during the same years, in continuation of those given in Volume 7 of the "*Madras Astronomical Observations*" awaiting publication.

It is now about forty years since the Astronomer Royal (then Prof. G. B. Airy) introduced a most important change in regard to meridian instruments, by suggesting a Transit Circle for the Royal Observatory in place of the two separate instruments hitherto employed for determining the absolute Right Ascensions and Polar Distances of celestial objects at Greenwich. The advantages of having both co-ordinates observed at the same time and by the same person, are so obvious, that it is surprising the old practice was so long endured by astronomers. The Royal Observatory was supplied with a magnificent Transit Circle in 1850, which was brought into use the following year, the object glass of its telescope being eight inches and its divided circle six feet in diameter. A fac-simile of the Greenwich instrument, subsequently supplied to the Cape Observatory, was first used there in 1855. Meanwhile however, in 1852, Mr. R. C. Carrington of Redhill, had a Transit Circle constructed for him by Messrs. Troughton and Simms, similar in all essential points to the new one at Greenwich, and divided by the same exquisite machinery, but with a five-inch object glass and a forty-two inch circle instead of the much larger and more costly size adopted at the Royal Observatory. When no longer required at the Redhill Observatory this fine instrument was removed to the Radcliffe Observatory, at Oxford, in 1861, and has been used there ever since.

In the year 1855, by the liberality of the Board of Directors of the Honorable East India Company, a new Transit Circle, similar to Mr. Carrington's, was ordered of Messrs. Troughton and Simms, upon the recommendation of Captain Jacob. The general superintendence of its construction was kindly undertaken by Mr. Carrington, who, in consultation with its able makers, advised such alterations in its various details as the experience of his own instrument had led him to consider advisable. The Transit Circle reached Madras in March, 1858, only a month before Captain Jacob's departure, and although orders were immediately issued for its erection, unforeseen difficulties and above all frequent changes in the direction of the Observatory, prevented it from being ready for use until four years after its arrival.

Similar instruments have since been supplied by the same eminent firm to Melbourne, Sidney and many other observatories, both public and private, at home and abroad. The description already given of any one of these instruments is so nearly applicable to all the others that the following brief details of the Madras Transit Circle may seem to many supererogatory, especially as the instrument has now been in constant use for nearly a quarter of a century.

## BUILDINGS.

These consist of two blocks;—one comprising the old Observatory with its more recent additions; a long, low, narrow structure, extending 196 feet from East to West, by 25 from North to South; the other, the residence of the Astronomer, facing south-east, about 120 yards south-west of the former, and covering a space of 75 by 50 feet. The original Observatory, built in 1792, consisted of a single room, 40 feet long by 20 broad and 15 high inside, with massive walls, over two feet in thickness. The floor rests on beams supported entirely by the walls and detached from the instrumental basement, which consists of a solid pyramidal mass of masonry, 37 feet long by 6 feet wide at its upper surface, 6 feet in depth, and 45 feet long by 12 feet broad below; probably little less firm or massive than a solid rock of similar dimensions. A conical granite pier rests on the centre of this mass, 4 feet in diameter at its base, tapering up to 2 feet at its total height of 18 feet, and weighing certainly over ten tons. This was the pier originally provided for the little 12-inch alt-azimuth by Troughton; while the small Transit by Stancliffe and the Transit-clock, both rested on granite supports

each weighing about $2\frac{1}{2}$ tons. When Mr. Taylor replaced the small instruments by the Dollond Transit and the Mural Circle, in 1830, they were fixed on stone piers, the former as far east and the latter as far to the west as the basement would allow, on opposite sides of the great central conical frustum, which was retained in position as a huge counterpoise, though no longer used as a support for any instrument.

The present Meridian Circle occupies the same position as Mr. Taylor's Transit-instrument, looking through the same slits in the roof and walls, which have however been made 22 inches wide instead of only 15 as formerly. Two brick piers were first erected for its reception, but these were condemned by Major Worster, in January 1859, and were replaced by excellent granite ones, under Major Tennant's superintendence, in 1860. Each of these piers measures $4\frac{1}{2}$ feet by 2 and rises 4 feet above the floor of the room. Four composition blocks, each $4\frac{1}{4}$ feet long by 2 wide and 2 feet 2 inches high, were sent out with the new instrument from England, and on two of these, surmounting the granite base piers, rests the Meridian Circle, with its pivot centres 6 feet 2 inches from the floor. The other two composition blocks or cap stones support the counterpoise arrangements and raise the piers to a total height of 8 feet 4 inches. The clear space between the piers for the observer is 39 inches.

Want of proper instructions, or possibly the loss of such if sent, in regard to the cap stones, caused much difficulty and delay in the erection of the instrument, as if placed in position as they were sent out, the pivots would have been built into two 12-inch square holes, inaccesible even for cleaning and oiling; while the instrument could never have been lifted so much as six inches out of its bearings, whatever alterations or repairs might at any time become necessary. Two slices of $9\frac{1}{2}$ inches thickness were accordingly cut out of the middle of each cap stone and these were afterwards found very useful in overcoming another difficulty of construction which will be described further on.

About the year 1845, when the Magnetical Establishment was removed to the Observatory, the old transit room received considerable extensions, rendered necessary for the accommodation of the additional instruments and assistants transferred to the care of the Government Astronomer. Eastward was added; first, a covered passage, 20 feet long by 8 broad, leading to the Dip-circle room, which measured 16 feet by 26 feet; next a magnetic room.

45 feet by 15 feet, in which the Bifilar, Vertical Force and Declination Magnetometers were placed and read hourly up to March 1861; and third, a small Transit-theodolite room, 16 feet by 12 feet, used in connection with the Declination Magnetometer and as a computing room for the head magnetical Assistant. About 30 feet more eastward stands a small detached room, 22½ feet by 15 feet, used only for periodical determinations of the absolute Horizontal Force, by means of the usual deflexion apparatus supplied to all the magnetical observatories started upon the recommendation of the Royal Society in the year 1841.

Westward of the old transit room were added two small rooms, each 20 feet by 15 feet, the first being used as a computing and manuscript room and the other as a store room for instruments and other property not in actual use.

In the year 1872 three additional rooms for celestial photography were hurriedly run up on the roof over the Transit Circle room, just in time to secure photographs of the annular eclipse of the Sun on June 6th of that year. The fine silver glass nine-inch reflector by John Browning, used by Colonel J. F. Tennant, at Guntoor, on the occasion of the total solar eclipse on August 18th, 1868, having been altered, repaired and sent to Madras by the advice of the Astronomer Royal in 1871, for use at Avenashi in the Coimbatore District, during the next total eclipse which India was privileged to witness on December 12th, 1871; was afterwards brought to Madras and mounted upon the large granite conical pier before mentioned; a room, 21 feet by 15 feet, being built to enclose it. A flat sliding shutter was provided, which when rolled off westward, left a square opening of 10 feet, giving the reflector a fair command of the sky except near the horizon where it was never likely to be used for photographic purposes. Two small rooms adjoining; one dark for developing and the other for printing and other purposes, were also prepared in time for the annular eclipse in 1872. Very complete and convenient arrangements for securing celestial photographs were made, ostensibly with a view to the approaching Transit of Venus, on December 8th, 1874, and the Browning reflector was in readiness for that important event, but unfortunately cloudy weather prevented any photographs from being taken and the telescope was dismounted and sent to Calcutta, in compliance with orders from the Government of India, in February 1875.

A small portable equatorial, with a 3½-inch object glass by Dollond, has since been placed in the reflector-room and is occasionally used for casual

phenomena, such as eclipses or occultations, but all photographic operations were of course stopped by the removal of the reflector. The recent wonderful advances in celestial photography may render the renovation and equipment of this part of the observatory a very important step in regard to observations in the near future.

The house, originally provided for the Astronomer's use only, is a still older and more substantial building than the Observatory proper already described, and much of it is now given up for purely official purposes. It contains in all eighteen rooms; eight on the ground floor; seven on the first floor and three on the roof. The ever increasing and already valuable and extensive Library occupies two rooms on the ground floor, and in these also are placed the electrical clock and telegraphic appliances used for giving true time to the local shipping and generally to all parts of India. A granite step of the north-east door of the Library is a bench-mark of the G. T. Survey of India and is 22 feet above mean sea level. The private office of the Astronomer is immediately over the Library, and on the roof are, a small Anemograph room, 10½ feet square; a 16-foot circular room with an excellent revolving dome, containing a fine eight-inch Equatorial by Messrs. Troughton and Simms, and another, slightly smaller but similar room, for the six-inch Equatorial by Messrs. Lerebours and Secretan, formerly used to such good purpose by Captain Jacob in measurements of double stars and of Saturn's satellites.

Photographs or drawings of the buildings and of the chief instruments were intended to have been given in this volume, but are unavoidably deferred for the present.

## THE MERIDIAN CIRCLE.

This fine instrument, as already stated, was made by Messrs. Troughton and Simms, in consultation with the late Mr. R. C. Carrington, and its general excellence has proved most satisfactory. The clear aperture of the object glass is 5¼ inches and its focal length about 60 inches; the magnifying powers of the eye-pieces being very nearly as engraved on each, *viz.*, 105, 147 and 230. The middle power has been used throughout. A Bohnenberger's eye-piece, power 106, was also supplied for determinations of the nadir point and level error.

The horizontal axis consists of a central 12-inch cube and two cones,

each ten inches in diameter at the cube and in one casting of gun-metal therewith; bearing at their extremities the pivots, also of gun-metal, which are 3 inches in diameter and rest in brass Y's, adjustable vertically only by screw-motion; any change in azimuth requiring the forcible bodily movement of the east pivot support by means of double wedges, but such adjustment has only been once needed since the instrument was finally mounted in 1862. The pivots and Y's are so well boxed in with close fitting brass covers that dust and moisture are effectually excluded.

The two ends of the telescope are each screwed to the cube by twelve stout bolts. There are two nearly similar gun-metal 42-inch circles, each firmly secured by means of eight screws to truly faced flanges, attached to the conical axes on opposite sides of the cube. The clear space between the two circles is just 30 inches. The eastern circle is coarsely divided, to 10′ only, for setting, and is also intended as a handle for turning the instrument round. It is clipped by two clamps, with slow motions and tangent rods, which have generally been used for making bisections in preference to the micrometer of the eyepiece, ever a fruitful source of error in polar distance determinations. The western circle carries a rim of gold, inclined at a level of about 12° to the plane of the circle to facilitate reading and illumination, and is divided with Messrs. Troughton and Simm's well known precision into 5′ spaces. The divisions are read off by six microscopes of very considerable magnifying power, so placed as to bring their micrometer eyepieces within a circle of 30 inches diameter and for the lower microscope to read zenith-distances. Each microscope micrometer screw moves a pair of close parallel wires, the nearest division of the limb being brought midway between them instead of being bisected by cross wires. The divided circle is enclosed in a light open work box to shield it from accidental injury by the observer.

The greatest source of delay and difficulty in mounting the instrument was in regard to the fixing of the six microscopes. It was obviously intended that they should be placed as they now are, for the lower one to read zenith distances, and the hole for it to look through was drilled in the lower part of the western pier in readiness. This however caused the upper microscope, in the cap-stone above, to come immediately above the flame of an argand lamp, provided for lighting up the field of view, or the wires in a dark field, and for the general illumination of the limb opposite to each microscope. It was soon found that the much smaller flame of a thin flat wick gave ample illumination for the limb and also for the wires in a bright field, though not

sufficient for the satisfactory use of bright wires in a dark field. With one of the slices cut out of the cap-stones, as mentioned on page vi, a conical frustum, of 24 inches base and 19 at its face, was attached to the western pier, projecting 6 inches from it, and with a continuation of the 12-inch square space left for the pivot supports, through its centre. By placing a small lamp therein, with a bent chimney to carry off all smoke and as much heat as possible, the difficulty was at last overcome; certainly not as arranged by Messrs. Troughton and Simms but quite effectual for the purpose. The conical projection lies between the micrometers, serving as a protection to them against possible injury, but is neither in the way nor in the least unsightly, and no one seeing the instrument for the first time would imagine for a moment that it was any addition to or departure from the original design. The light of the small lamp is guided and condensed by a frame of seven lenses; a large central one for illuminating the field, and six smaller ones for distributing it where required upon the divided limb under each microscope.

Two pairs of brass arcs had been provided for the support of the other four microscopes; one pair for the eyepieces and micrometers on the outside western face of the pier, and a larger pair, to bear the objectives on its eastern or inner side; apertures being also left in the composition stones for the long tubes connecting the eyepieces and their objectives; but in order to fix the upper microscope after cutting out a 9½ inch slice just where it had to come, two more similar metal arcs had to be cast and made up here. Considering the difficulty of getting anything of the kind done in Madras in those times, it would have been much better for Messrs. Troughton and Simms to have sent out a skilled mechanic to assist in the erection of the instrument, but it fortunately happened, that in September, 1861, a German Mathematical Instrument maker, the late Mr. F. Doderet, was sent out by the Right Honorable, the Secretary of State for India, to start workshops for the repair of levels, theodolites, &c., for the Public Works Department, and as no place, plant or assistants were prepared for him, I was readily granted the benefit of his services for six months. Major Tennant, when in charge of the Observatory had purchased for Government an excellent lathe, by Holtzaffel, and with it and a supply of other tools from the Arsenal, we set vigorously to work and got the Transit usable for time determinations by the end of the year, and all the modifications required in the microscope arrangements finished in May 1862, when complete observations were first steadily commenced.

Heavy counterpoises, with their fulcra resting on inch thick iron plates, crossing the cap stones, relieve the Y's of most of the weight of the instrument, by means of two pair of 5-inch friction rollers, applied to grooves on the axis between the circles and pivots; small additional weights sufficing to lift it out of its bearing for cleaning and oiling. The residual pressure of the pivots upon each Y is about 10 or 12 lbs.

A finder, 15 inches in length and 1½ in aperture was added to the telescope, presumably for estimating the magnitudes of the brighter stars but its utility for that or any other purpose is very questionable.

The telescope eyepiece was provided with a system of seven vertical and one horizontal spider lines, moveable each way by micrometer screws of practically the same thread. The single horizontal line was replaced by a close pair, about 12″ apart, and bisections have throughout been made by bringing stars exactly midway between the two when crossing the centre vertical wire. For observations of Mars especially, the estimated equality of the segments above and below, was unquestionably better than tangential contacts of a single line with either north or south limb.

For collimating, two 35-inch telescopes with 2¾-inch object glasses, are mounted on piers, level with the centre of the Transit-circle, inside the room, and at a distance of 57 inches from the object glass of the instrument when turned to either the north or south horizon. The central cube is pierced by two 4-inch circular apertures, so that the wires in each collimator can be seen through the other when the circle reads 180.° The south collimator micrometer moves horizontally, for fixing an approximate meridian line, and the north one vertically, so as to give a nearly horizontal line for flexure determinations. Having only native assistants for observers and considering therefore that extreme simplicity would ensure the safest results, I did not adopt the Greenwich pattern of wires, but preferred simple crosses; that in the north collimator being arranged as in the sign × and that in the south collimator as a +, which I thought better suited to those who had to use them.

Upon my arrival at Madras I found the collimators placed outside the Observatory in small square detached rooms, twenty feet further from the Transit-circle than they now are. This was far more convenient as regarded space inside, and would have permitted of reflexion observations being taken much lower, had such been possible and urgently desirable; but I soon

found upon trial, that the passage of the visual rays through three strata of air of very unequal temperatures, caused the wires to appear so faint and tremulous that I gladly removed the collimators inside the Observatory, as Mr. Carrington's were placed at Redhill, and the result was all that could be expected or desired.

A convenient transit observing seat runs on six rollers, between the circle piers, from one collimator pier to the other; and on the instrumental basement, a foot below the boarded floor, in which are five hinged trap doors, is a railway for two moveable reflexion troughs, besides a fixed circular one, vertically below the centre of the Transit-circle, for use with the Bohnenberger eyepiece, for nadir point and level error determinations.

## CLOCKS AND CHRONOGRAPH.

One of those rare and matchless old clocks, by Shelton, with a gridiron pendulum the compensation of which as nearly approaches perfection as possible, was found in India when the Observatory was first started in 1792, and is to this day by far the steadiest timekeeper in the place. It was used as the transit-clock till 1859, when it was replaced by a new one by Dent, with a mercurial pendulum, of the best modern construction, but certainly no improvement upon the old one except in its far louder and more convenient beat. Some of the mercury was accidentally spilt in setting up the new clock and though more was added to replace the missing quantity, its compensation has never yet been so satisfactory as that of the old Shelton, which has since been used with the principal Equatoreal. The performance of the Dent transit-clock has, however, been good throughout and no better could be desired as a standard sidereal regulator.

A curious old clock, by Haswall, used by Mr. Goldingham in his pendulum experiments in 1821, with a mainspring instead of a weight and a very peculiar double escapement, was formerly used with the old mural-circle and was most capricious in its daily rate. The escapement being simplified and the spring exchanged for a barrel and weight, it has been used with the smaller equatoreal since 1866, and has worked better, though never comparable to the two first named.

An excellent mean time electrical clock by Shepherd & Son, was supplied to the Observatory in 1872, and though severely criticized when under trial at the India Store Department for instruments, at Lambeth, it has worked well

enough at Madras. It transmits hourly currents, by which a time gun at Fort St. George, about three miles distant, is fired at noon and 8 p.m., and a semaphore at the Marine Office, a mile further, is dropped at 8 a.m. and 2 p.m., with as few failures as are usually made in time signals elsewhere. It also passes alternately positive and negative currents, second by second, for the control of sympathetic-clocks, one of which has been going at the Marine Office since 1879, as fairly as could be expected considering its very indifferent treatment ever since it was set up. When first received at Madras, the Shepherd clock had a magnetic contrivance for the daily rectification of its small error, as necessary in all electrical motor clocks, and this was undoubtedly the source of dissatisfaction when on its trial in London, as until it was discarded nothing could be done with the clock here. As soon however as a simple gravitation adjustment was substituted, consisting of a small brass weight of 159 grains, which when placed upon a shelf about 18 inches below the point of suspension of the pendulum makes the clock gain a hundredth of a second per minute, or lose at the same rate when placed on another shelf below the pendulum jar, all irregularities ceased and no further difficulty was experienced.

Application was made for a chronograph in 1863, chiefly with a view to carrying out telegraphic longitude operations, and for observations of Mars in opposition for investigation of the constant of solar parallax. A barrel chronograph was specified as being the only kind desired, the time marks being read off with so much more certainty, speed and convenience when in parallel rows on a single sheet than from many yards of a thin paper tape or fillet. My application received no reply at the time, but several years later a French fillet recorder was sent out; too late for the special purposes for which it was wanted and quite unsuitable, even if it had been supplied when asked for.

## OBJECTS SELECTED FOR OBSERVATION WITH THE TRANSIT CIRCLE.

The objects selected for observation with the new Meridian-circle were; the brighter stars inclusive, down to the 5th magnitude; the moon and moon-culminating stars given in the Nautical Almanac; Mars and the stars observed with him at successive oppositions, on the meridian, as well as those used east and west, with the Equatoreal, for parallax investigations; minor planets in opposition, if not under the 10th magnitude; comparison stars used for differential observations of comets and planets from 1861; all known

variable stars; zero stars for maps of those objects in hand, and as many others, not below the 9th magnitude, as time would permit, between 130° and 150° Polar Distance, as determining stars for the zones of the Southern Survey, in extension of the late Prof. Argelander's great Northern Survey, which, with that distinguished astronomer's warm approval and advice I had intended to make my chief personal labor at Madras. The very extraordinary opposition met with to this work, from a quarter whence such was least expected, partitioning out in portions to other observatories the work I had undertaken as a whole, compelled me to abandon any participation in its accomplishment at the end of 1863, after it had been fairly commenced in that year.

The refusal of European assistance, after I had been authorized to apply to Prof. Argelander and Mr. Hind to suggest for appointment any well qualified young astronomer either of them might know of as available, was a death blow to the too ambitious programme I had undertaken and an unforeseen justification for my renunciation of the Southern Survey. The local Government and its distinguished chief, Sir W. Denison R. E., had warmly supported my plea for a German or English assistant, and were so well assured of its being granted, that the plan and estimate for separate quarters in the Observatory grounds, for the accommodation of a Deputy Astronomer, were sanctioned and the foundations actually laid out, before the refusal of the promised help was received from the India Office in London. My intention was to have only a small catalogue of stars observed by the native assistants with the Meridian Circle, pending completion of the first few maps of the Southern Survey, and as soon as the approximate catalogues, similar to those of the Bonn "*Durchmusterung*" were available, to have all the stars they contained observed in zones with the new instrument, just as the "*Durchmusterung*" itself has been since dealt with by the northern observatories.

Finding that the Meridian-circle must be used by native observers only, who though good for the slow methodical processes of ordinary meridian observations, could never be entrusted with the more arduous work of zoning; the best course was to increase the former observing list by the addition of as many anonymous stars of more than 120° Polar Distance as could be found, not less than the 8th magnitude. No star was to be observed on less than five nights and all objects of more than ordinary interest on at least ten nights, and this has been adhered to throughout, wherever possible.

# OBSERVATIONS.

Observations with the Meridian Circle, the results only of which are given in this volume, were almost entirely made by three native assistants, who were as fair observers as could probably be found of their class. The first Assistant, C. Sashoo Iyengar, was scrupulously careful and accurate and was warmly commended by every Astronomer, from 1837 up to the time of his death, in March, 1863. He was succeeded by C. Ragoonatha Chary, whose better mathematical attainments and general aptitude for science, justified me and my friend, Mr. E. B. Powell, then Director of Public Instruction, and one of the greatest authorities upon the subject of Double Stars, in recommending him for the honor of election as a Fellow of the Royal Astronomical Society. The other native assistant who took part in the meridian observations was T. Moottoosawmy Pillay; also a very trusty, painstaking man. All three had used the old meridian instruments, but it was not until after more than a year's practice with the new Transit-circle that I dare trust them to determine all their own instrumental corrections in the ordinary course of the night observations; though decidedly convinced that it is far better to do so than to make special determinations and interpolate for the required dates, however steady the corrections may be. There were such evident personalities between them, that from the first I made each assistant find his own corrections; nearly always being present, until I became assured that it would be safe to entrust them with such manipulations alone. The corrections for index and run of the microscopes micrometers were, from the first, found at night, but those for inclination and collimation in the day time, until September 1863. Due allowance being made for diurnal aberration, the right ascension micrometer was set to the corrected reading for no collimation; and until April 1863, when the use of the polar distance micrometer was first considered prudent, bisections were made with the tangent rods and slow motions of the clamps. Even then it proved a very questionable step and was a fruitful source of error long after its introduction.

Observations were entered, in pencil, in convenient recording books as they were made. The standard barometer, by Newman, supplied by the Royal Society in 1841, and one of two thermometers, verified at Kew, were recorded for refraction reductions; the one used being at either a north or south window, according to the direction of the wind at the time of observation.

## REDUCTION OF THE OBSERVATIONS.

These were carried out in folio day books. The originals were bound for preservation in the Observatory, but as in the tropics it seems impossible to ensure that for long, copies were made for safer deposit in England, where they may be readily available for reference whenever desirable.

The arrangement of the day books is as follows:—

Left side.—Polar Distance: 12 columns.

1.—Reference Number.
2.—Date and Observer.
3.—Barometer.
4.—Thermometer.
5.—Name of Object.
6.—Deduced Circle Reading:—*i. e.*—zenith distance counted round through south nadir and north, up to 360°; the means of the six microscopes, corrected for index, run of micrometers, and curvature if not observed at the centre of the field.
7.—Refractions, computed by "*Bessel's Tables*" as modified and expanded in an appendix to the Greenwich Observations for 1853.
8.—Apparent Polar Distance, assuming the latitude as given in the Nautical Almanac; *viz.*, 13° 4′ 8″·1 north.
9.—Reductions to January 1st; using the "Day Numbers" of the Nautical Almanac, and constants calculated for every star not in the N. A. list for the year.
10.—Mean Polar Distances of Stars.
11.—Apparent Polar Distance by Ephemeris.
12. Correction to Ephemeris.

Right side.—Right Ascension: 17 columns.

1.—Reference Number.
2.—Name of Object.
3.—Number of Wires.
4.—Estimated Magnitudes.
5.—Mean of Wires:—the clock time of transit over the mean of the seven wires being meant in all cases, and every object observed over a less number being reduced thereto by the adopted intervals of the wires noted.
6.—Inclination correction.
7.—Collimation correction.
8.—Meridian correction.
9.—Personal equation of Observer.
10.—Sum of columns 6, 7, 8 and 9.
11.—Corrected clock time of transit.
12.—Clock correction applied.
13.—Apparent Right Ascension.
14.—Reduction to January 1st, calculated as in column 9 of the Polar Distance page.
15.—Mean Right Ascensions of Stars.
16.—Apparent Right Ascension by Ephemeris.
17.—Correction to Clock or Ephemeris.

The contents of the Observing or Recording books and of the Reduction or Day books are now rarely published except at national Observatories; colonial and private Observatories seldom having either the staff or the funds required for printing such voluminous details, of questionable interest or utility to those who only desire results.

The horizontal wires were most carefully adjusted, so that a star brought exactly between them upon entering the field of view was satisfactorily so when quitting it at the opposite side and no correction was therefore required for the very few cases in which a star was not bisected close to the middle transit wire.

The value of one revolution of the Polar Distance micrometer, found by bisecting the cross of the north collimator with the close horizontal wires at different settings of the micrometer and reading off the Circle, was 26″·33. Measured by means of coincidences between the wires and their reflected image, it was 26″·37. The mean value, 26″·35 was adopted.

The value of one revolution of the Right Ascension micrometer, found in a similar manner, after turning the eyepiece end through 90°, until the close horizontal wires were in a vertical line and then reading off the Circle when the centre wire was made to bisect the cross of the north collimator at various readings, was 26″·66 = 1·771 seconds of time.

The intervals of the seven wires from their mean, determined by twelve complete transits of polar stars in 1862, were as follows:—

+36ˢ·979 +24ˢ·705 +12ˢ·351 +0ˢ·109 −12ˢ·348 −24ˢ·697 −37ˢ·098

The Madras factors for inclination and meridian corrections were found by the following formulæ; the Polar Distance being considered negative for below pole factors.

Inclination factor = +0·974 + (9·35435) cotan. Polar Distance.

Meridian factor = +0·226 − (9·98861) cotan. Polar Distance.

The correction for diurnal observation at Madras being 0ˢ·020, for the centre wire + 0ˢ·109, and the zero of collimation having been found by taking the mean of the R. A. micrometer readings of the centre wire, when bisecting the crosses in the north and south collimators, after they had been adjusted upon each other; we have for any other reading of the R. A. micrometer:

Collimation correction = 1ˢ·771 (zero of coll. − adopted reading − 0·073).

The reading of coincidence of the centre wire with its reflected image in mercury being taken, we have also;

Inclination correction = 1ˢ·771 (zero of coll. − coincidence reading).

The small altitude of the pole at Madras renders the observation of stars often impossible at their lower transit. Weather permitting, the Meridian-correction was found by a pair of polar stars, but frequently of necessity from one only, combined with a south star, when of course no other use was made of the observation, beyond that of furnishing the correction for the night. The correction was interpolated when not otherwise determinable.

Personal equations were merely used for the convenience of avoiding changes in the local time, for the public signals, as different observers came on duty. The watches usually extended over half a month and the clock errors were never mixed. Upon several occasions, when the instrument was in use only as a Transit, before the Circle arrangements were completed, I observed a number of clock stars intermediate between those of the native assistants, and from comparisons thus obtained, it appeared that they all required negative corrections to their recorded times relatively to my own. The numbers adopted were; for Sashoo $-0^{s}\cdot75$, for Ragoonatha $-0^{s}\cdot35$, and for Moottoosawmy $-0^{s}\cdot23$. I afterwards found that similar differences in the habits of bisection existed between the native observers and myself; rendering it equally necessary for each one to determine his own corrections for Index and Run, and causing apparent changes in the corrections certainly not due to the instrument, as may be readily seen in the following tables of adopted "*Instrumental Corrections*", where the numbers enclosed in brackets are the determinations of different observers on the same night.

The Nautical Almanac positions of Standard stars were used entirely for finding the clock corrections, a few being rejected for the purpose, especially Sirius and 61 Cygni. Whatever corrections are due to the Nautical Almanac stars will therefore affect the Madras Right Ascension throughout.

For the determination of the Meridian corrections, as well as with a view to securing data for correction of the assumed latitude, the positions of a number of the brighter stars in the "*Catalogue of* 164 *Stars within* 6° *of the North Pole*", given in Vol. XVI of the "*Radcliffe Observations*" were employed. I preferred using the positions given therein to those of the "*Radcliffe Catalogue of Stars for* 1845", as they were entirely my own bringing up, under the supervision of my esteemed chief Mr. Johnson, then Radcliffe

Observer, who was ever anxiously watchful for the results as the work was in progress.

A flexure correction of 1″·72 × sin Zenith Distance, was applied provisionally to the Polar Distances in this volume and I regret not having awaited a final value before using such a correction at all.

Any investigation of the correction to the assumed latitude before the flexure correction is finally settled would be premature; nor do I think it will be worth while to trifle with partial year to year enquiries now that all the observations for the Catalogue are completed. There is good reason to believe that the latitude requires to be increased (Mr. Taylor used 9″·2 instead of 8″·1 for his "*General Catalogue for* 1835") and it will be far better to combine all observations taken of each star, above and below pole, when reduced to the epoch 1875, a work which I hope to proceed with as early as other duties will permit, while the next volume is in hand.

*Instrumental Corrections adopted in* 1862.

| Date. | Index. | Run in 5′ | Clock Rate | Inclination. | Meridian. | Determining Stars. |
|---|---|---|---|---|---|---|
| 1862. | ″ | ″ | s | s | s | |
| May 31 | − 3·5 | + 0·7 | − 0·36 | 0·00 | + 0·39 | |
| June 2 | − 5·0 | + 0·8 | − 0·32 | 0·00 | + 0·53 | ρ Bootis and Polaris |
| 3 | − 4·5 | + 0·8 | − 0·41 | 0·00 | + 0·45 | ρ Bootis and 34 R. P. L. |
| 4 | − 4·1 | + 0·8 | − 0·46 | 0·00 | + 0·49 | 108 R. P. L. and β Corvi. |
| 5 | − 3·8 | + 0·8 | − 0·34 | 0·00 | + 0·50 | 108, 111, 115 R. P. L., and ε, β Corvi. Spica. |
| 7 | − 4·8 | + 0·5 | − 0·34 | + 0·13 | + 1·16 | 111 R. P. L. and α Libræ. |
| 9 | − 3·5 | + 0·5 | − 0·32 | − 0·08 | + 0·09 | |
| 10 | − 4·0 | + 0·7 | − 0·36 | − 0·06 | + 0·09 | ε Urs. Min. and Antares. |
| 12 | − 5·2 | + 0·5 | − 0·42 | − 0·02 | + 0·13 | 111 R. P. L. and Antares. |

The Inclination correction was adjusted on each of the first five nights on which the instrument was used. It was afterwards determined, about noon, on June 7, 9, 12.

The Right Ascension micrometer was set to the corrected reading for no collimation, except on June 7, when it was left by mistake so as to require a correction of − 0·14 second

## *Instrumental Corrections adopted in* 1862.

| Date | Index. | Run in 5′ | Clock Rate. | Inclination. | Meridian. | Determining Stars. |
|---|---|---|---|---|---|---|
| 1862 | ″ | ″ | s | s | s | |
| June 13 | − 4·6 | + 0·5 | − 0·40 | − 0·05 | + 0·11 | |
| 16 | − 4·1 | + 0·3 | − 0·38 | − 0·06 | + 0·03 | |
| 19 | − 3·6 | + 0·2 | − 0·41 | − 0·05 | − 0·05 | 111 R. P. L., β Urs. Min. and β¹ Scorpii. |
| 21 | − 4·5 | + 1·0 | − 0·36 | − 0·06 | + 0·19 | 3 Urs. Min. and β Libræ. |
| 24 | ......... | ......... | − 0·23 | − 0·05 | + 0·21 | 111 R. P. L. and α Serpentis |
| 27 | ......... | ......... | − 0·25 | − 0·05 | + 0·18 | |
| 30 | ......... | ......... | − 0·38 | − 0·05 | + 0·13 | |
| July 3 | + 0·3 | 0·0 | − 0·35 | + 0·02 | + 0·11 | ε Urs. Min. and θ Ophiuchi. |
| 4 | + 0·3 | − 0·2 | − 0·34 | + 0·02 | + 0·13 | δ Urs. Min. and β¹ Scorpii. |
| 8 | + 0·1 | 0·0 | − 0·39 | + 0·02 | + 0·07 | |
| 12 | − 1·1 | + 0·2 | − 0·35 | − 0·05 | + 0·01 | δ Urs. Min. and ρ Capricorni |
| 15 | + 3·5 | + 0·1 | − 0·33 | − 0·03 | + 0·04 | ε Urs. Min. and β¹ Scorpii |
| 16 | + 3·9 | + 0·1 | − 0·36 | − 0·03 | + 0·05 | |
| 18 | + 4·1 | 0·0 | − 0·40 | − 0·02 | + 0·04 | |
| 19 | + 3·8 | 0·0 | − 0·39 | − 0·02 | + 0·03 | |
| 22 | + 2·6 | 0·0 | − 0·33 | − 0·02 | 0·00 | |
| 23 | + 2·7 | + 0·5 | − 0·22 | − 0·03 | − 0·02 | ε Urs. Min. and β¹ Scorpii. |
| 24 | + 2·7 | + 0·5 | − 0·18 | − 0·01 | + 0·04 | |
| 25 | + 3·0 | + 0·3 | − 0·20 | − 0·01 | + 0·09 | ε Urs. Min. and β¹ Scorpii. |
| 26 | + 2·4 | − 0·1 | − 0·28 | − 0·01 | + 0·06 | ε Urs. Min. and β¹ Scorpii. |
| 28 | + 2·4 | − 0·1 | − 0·56 | − 0·07 | + 0·08 | δ Urs. Min. and β¹ Scorpii |
| July 29 | + 2·5 | − 0·3 | − 0·53 | − 0·07 | + 0·12 | 131 R. P. L. and δ Aquilæ |
| 30 | + 2·7 | + 0·2 | − 0·63 | − 0·07 | + 0·12 | |
| 31 | + 2·4 | 0·0 | − 0·63 | − 0·07 | + 0·12 | |
| Aug. 1 | + 2·2 | 0·0 | − 0·12 | − 0·07 | + 0·05 | δ Urs. Min. and α² Capricorni |
| 2 | + 2·4 | − 0·1 | − 0·10 | − 0·07 | + 0·03 | δ Urs. Min. and α Ophiuchi. |

The microscopes were removed on June 23, for a few days, during the fastening of a conical stone ring to the western pier, between them and the lamp.

The microscopes were re-adjusted throughout on July 3 and 15.

The Clock rate was diminished 0·5 second after the observations on July 31.

The Inclination correction was determined, usually about noon, on June 14, 17, 20, July 3, 10, 15, 21, 28 and August 4.

The Right Ascension micrometer was set to the corrected reading for no collimation, except on June 19, when by a careless mistake it was left seven revolutions wrong and a correction of − 12·40 seconds had to be used.

## *Instrumental Corrections adopted in 1862.*

| Date. | Index. | Run in 5′ | Clock Rate. | Inclination. | Meridian. | Determining Stars. |
|---|---|---|---|---|---|---|
| 1862. | ″ | ″ | s | s | s | |
| Aug. 5 | + 1·9 | + 0·2 | − 0·07 | − 0·05 | + 0·03 | |
| 9 | + 2·2 | + 0·1 | − 0·15 | − 0·05 | + 0·03 | |
| 12 | + 3·5 | 0·0 | − 0·07 | − 0·12 | + 0·03 | |
| 13 | + 3·7 | − 0·3 | − 0·02 | − 0·12 | + 0·03 | |
| 14 | + 2·3 | − 0·3 | − 0·10 | − 0·12 | + 0·09 | λ Urs. Min. and $\lambda^{1}$ Sagittarii |
| 16 | + 3·3 | + 0·1 | − 0·26 | + 0·01 | + 0·09 | |
| 18 | + 3·2 | 0·0 | − 0·33 | + 0·01 | + 0·09 | |
| 20 | + 4·2 | 0·0 | − 0·52 | + 0·01 | + 0·09 | δ Urs. Min. and Altair |
| 21 | + 3·2 | − 0·2 | − 0·42 | + 0·01 | + 0·08 | δ Urs. Min. and β Aquilæ. |
| 22 | + 3·1 | − 0·5 | − 0·28 | + 0·01 | + 0·17 | 131 R. P. L. and δ Aquilæ |
| 23 | + 3·2 | − 0·5 | − 0·28 | + 0·01 | + 0·16 | 150 R. P. L. and 5 Aquilæ. |
| 25 | + 2·7 | − 0·5 | − 0·32 | − 0·09 | + 0·13 | |
| 26 | + 2·7 | − 0·1 | − 0·30 | − 0·09 | + 0·12 | |
| 27 | + 2·8 | − 0·3 | − 0·35 | − 0·09 | + 0·10 | |
| 28 | + 0·5 | + 0·4 | − 0·27 | − 0·09 | + 0·09 | |
| Sep. 1 | − 0·9 | 0·0 | − 0·33 | − 0·22 | + 0·03 | |
| 3 | + 0·3 | − 0·1 | − 0·36 | − 0·22 | 0·00 | |
| 5 | { + 0·6 + 1·2 } | 0·0 | − 0·10 | − 0·22 | − 0·03 | γ Aquilæ and 51 Cephei. |
| 6 | + 0·7 | + 0·4 | − 0·17 | − 0·26 | + 0·02 | 150 and 72 R. P. L. |
| 8 | + 1·5 | + 0·2 | − 0·30 | − 0·23 | + 0·02 | |
| 9 | + 1·8 | + 0·2 | − 0·21 | − 0·23 | + 0·02 | |
| 10 | + 1·1 | + 0·1 | − 0·24 | − 0·23 | + 0·01 | 12 and 89 R. P. L. |
| 11 | + 0·7 | + 0·2 | − 0·38 | − 0·23 | + 0·01 | |
| 12 | + 0·2 | + 0·1 | − 0·30 | − 0·23 | + 0·01 | |
| 13 | + 0·9 | + 0·1 | − 0·40 | − 0·23 | + 0·01 | |
| 15 | + 0·9 | + 0·1 | − 0·32 | − 0·21 | + 0·01 | |
| 16 | + 0·4 | 0·0 | − 0·35 | − 0·22 | + 0·01 | |

The two brass arcs which support microscopes B and C were removed for necessary alterations and repair of a broken screw on August 28.

The Inclination correction was determined, usually about noon, on August 11, 16, 25, 29, September 1, 2, 4, 8, 16.

The Right Ascension micrometer was set to the corrected reading for no collimation except on September 1 when it was slightly misplaced, leaving a correction of + 0·02 second, and also on September 3 and 5, when the required correction was + 0·01 second.

*Instrumental Corrections adopted in 1862.*

| Date. | Index. | Run in 5′ | Clock Rate. | Inclination. | Meridian. | Determining Stars. |
|---|---|---|---|---|---|---|
| 1862. | ″ | ″ | s | s | s | |
| Sep. 17 | + 0·6 | + 0·2 | − 0·23 | − 0·22 | + 0·02 | |
| 18 | 0·0 | + 0·2 | − 0·12 | − 0·22 | + 0·02 | |
| 20 | 0·0 | + 0·2 | − 0·32 | − 0·22 | + 0·02 | |
| 22 | + 1·8 | + 0·2 | − 0·01 | − 0·31 | + 0·02 | 151 R. P. L. and 12 Ceti |
| 23 | + 1·7 | 0·0 | + 0·02 | − 0·22 | + 0·02 | |
| 24 | + 1·7 | + 0·3 | − 0·26 | − 0·22 | + 0·02 | |
| 26 | + 2·8 | + 0·1 | − 0·73 | − 0·26 | + 0·03 | |
| 27 | + 2·3 | − 0·3 | − 0·79 | − 0·26 | + 0·03 | |
| 29 | + 2·5 | − 0·3 | − 0·77 | − 0·26 | + 0·03 | 150 R. P. L. and β Aquarii |
| 30 | + 2·9 | + 0·8 | − 0·81 | − 0·26 | + 0·02 | 150, 158 R. P. L., and ρ Capricorni |
| Oct. 1 | + 0·8 | + 0·2 | − 0·80 | − 0·31 | + 0·03 | |
| 2 | + 1·2 | + 0·3 | − 0·76 | − 0·31 | + 0·04 | 150 and 72 R. P. L. |
| 3 | + 1·6 | − 0·2 | − 0·76 | − 0·31 | + 0·03 | |
| 4 | + 1·1 | 0·0 | + 0·27 | − 0·31 | + 0·03 | |
| 6 | + 0·8 | + 0·5 | + 0·14 | − 0·31 | − 0·01 | 150 R. P. L. and ι Piscium |
| 7 | + 0·8 | − 0·4 | + 0·22 | − 0·31 | + 0·03 | 150 and 70 R. P. L. |
| 8 | + 0·8 | 0·0 | + 0·20 | − 0·27 | + 0·03 | |
| 9 | + 0·6 | − 0·2 | + 0·12 | − 0·27 | + 0·03 | |
| 10 | + 2·2 | − 0·2 | + 0·24 | − 0·27 | + 0·03 | |
| 11 | + 1·6 | + 0·1 | + 0·27 | + 0·11 | − 0·03 | 150 R. P. L. and ζ Pegasi |
| 13 | + 1·5 | + 0·1 | + 0·17 | + 0·11 | − 0·03 | 150 and 72 R. P. L. |
| 14 | + 1·7 | − 0·1 | + 0·20 | + 0·11 | − 0·04 | 150 R. P. L. and ε Aquarii |
| 15 | + 1·8 | + 0·1 | + 0·26 | + 0·11 | + 0·01 | 150 and 72 R. P. L. |
| 16 | + 1·6 | 0·0 | + 0·17 | + 0·10 | − 0·05 | 150 and 72 R. P. L. |
| 17 | + 2·0 | + 0·4 | + 0·12 | + 0·10 | − 0·06 | |
| 18 | + 1·2 | + 0·3 | + 0·13 | + 0·10 | − 0·07 | |
| 20 | + 1·7 | + 0·3 | + 0·17 | + 0·10 | − 0·08 | |
| 21 | + 1·2 | 0·0 | + 0·17 | + 0·10 | − 0·09 | Polaris and δ Sculptoris |

The Clock rate was diminished by 1 second after the observations on October 3.

The Inclination correction was determined, usually about noon, on September 24, 26, October 8, 11, 16. It was adjusted on October 4.

The Right Ascension micrometer was set to the corrected reading for no collimation before beginning to observe.

## *Instrumental Corrections adopted in 1862.*

| Date. | Index. | Run in 5′ | Clock Rate | Inclination | Meridian | Determining Stars |
|---|---|---|---|---|---|---|
| 1862. | ″ | ″ | s | s | s | |
| Oct. 23 | + 1·1 | − 0·1 | + 0·11 | + 0·13 | − 0·07 | Polaris and δ Sculptoris. |
| 24 | + 1·0 | − 0·1 | + 0·11 | + 0·13 | − 0·07 | |
| 25 | + 0·3 | + 0·1 | − 0·01 | + 0·13 | − 0·06 | |
| 27 | + 0·8 | + 0·2 | − 0·35 | + 0·13 | − 0·05 | |
| 28 | − 0·5 | + 0·2 | − 0·19 | + 0·13 | − 0·05 | 158 and 79 R. P. L. |
| 29 | ........ | ........ | − 0·01 | + 0·13 | − 0·02 | |
| 31 | + 2·1 | + 0·4 | + 0·01 | + 0·13 | + 0·04 | 26 R. P. L. and β Ceti. |
| Nov. 1 | + 3·1 | + 0·6 | + 0·05 | + 0·09 | + 0·09 | ω Piscium and 72 R. P. L. |
| 3 | + 3·3 | + 0·5 | + 0·06 | + 0.09 | + 0·11 | 153 and 72 R. P. L. |
| 4 | + 3·2 | + 0·1 | + 0·08 | + 0·09 | + 0·14 | 153 and 93 R. P. L. |
| 5 | + 3·0 | + 0·1 | + 0·02 | + 0·09 | + 0·12 | 153 and 72 R. P. L. |
| 6 | + 3·1 | + 0·6 | + 0·07 | + 0·09 | + 0·17 | 153 and 72 R. P. L. |
| 7 | + 2·4 | − 0·2 | + 0·00 | + 0·09 | + 0·07 | 26 and 89 R. P. L. |
| 8 | + 1·7 | 0·0 | − 0·11 | + 0·09 | + 0·13 | 26 and 103 R. P. L. |
| 11 | + 0·6 | + 0·5 | − 0·03 | + 0·09 | + 0·21 | 153 and 72 R. P. L. |
| 12 | + 1·4 | + 0·5 | + 0·03 | + 0·09 | + 0·12 | 150 and γ Piscium. |
| 13 | + 1·9 | + 0·4 | + 0·03 | + 0·06 | + 0·16 | 150 and 72 R. P. L. |
| 14 | + 1·3 | − 0·3 | − 0·01 | + 0·06 | + 0·09 | Polaris and θ Aquarii. |
| 15 | 0·0 | − 0·3 | − 0·04 | + 0·06 | − 0·01 | 26 and 92 R. P. L. |
| 20 | + 1·3 | − 0·3 | − 0·28 | + 0·13 | + 0·09 | Polaris and β Ceti. |
| 22 | + 3·1 | − 0·3 | − 0.24 | + 0·13 | + 0·11 | |
| 24 | + 4·5 | − 0·3 | − 0·12 | + 0·13 | + 0·12 | |
| 25 | + 3·7 | − 0·1 | − 0·13 | + 0·13 | + 0·13 | Polaris and γ Ceti. |
| 26 | + 3·1 | − 0·4 | − 0·18 | + 0·13 | + 0·13 | |
| 28 | + 4·4 | − 0·4 | − 0·18 | + 0·14 | + 0·13 | 12 R. P. L. and φ Ceti. |
| 29 | + 4·6 | − 0·3 | − 0·08 | + 0·14 | + 0·14 | |
| Dec. 1 | + 2·1 | − 0·3 | − 0·10 | + 0·17 | + 0·18 | 33 and 89 R. P. L. |
| 2 | + 2·2 | − 0.2 | − 0·17 | + 0·17 | + 0·10 | 33 and 114 R. P. L. |

The Inclination correction was determined, usually about noon, on October 23, November 1, 14, 17, 29 and December 1.

The Right Ascension micrometer was set to the corrected reading for no collimation before beginning to observe.

*Instrumental Corrections adopted in 1862.*

| Date. | Index. | Run in 5′ | Clock Rate. | Inclination. | Meridian. | Determining Stars. |
|---|---|---|---|---|---|---|
| 1862. | ″ | ″ | s | s | s | |
| Dec. 3 | + 1·8 | + 0·4 | − 0·17 | + 0·17 | + 0·11 | Polaris and ν Piscium |
| 4 | + 1·9 | + 0·3 | − 0·23 | + 0·17 | + 0·18 | α Arietis and ε Urs Min. |
| 5 | + 1·1 | + 0·3 | − 0·28 | + 0·17 | + 0·14 | 10 R. P. L. and β Ceti. |
| 6 | + 0·8 | + 0·2 | − 0·33 | + 0·17 | + 0·16 | |
| 8 | − 0·1 | + 0·2 | − 0·39 | + 0·17 | + 0·20 | 40 R. P. L. and ε Urs. Min |
| 9 | − 0·1 | + 0·4 | − 0·34 | + 0·17 | + 0·21 | 43 R. P. L. and ε Urs. Min. |
| 10 | + 0·2 | + 0·4 | − 0·24 | + 0·17 | + 0·15 | 26 R. P. L. and γ Ceti. |
| 11 | + 0·6 | + 0·1 | − 0·25 | + 0·17 | + 0·18 | Polaris and α Arietis. |
| 20 | ......... | ......... | − 0·37 | + 0·12 | + 0·18 | |
| 25 | ......... | ......... | − 0·31 | + 0·12 | + 0·19 | |
| 29 | ......... | ......... | − 0·30 | + 0·12 | + 0·20 | 33 R. P. L. and 67 Ceti. |
| 31 | ......... | ......... | − 0·37 | + 0·04 | + 0·22 | 33 R. P. L. and 67 Ceti. |

*Instrumental Corrections adopted in 1863.*

| Date. | Index. | Run in 5′ | Clock Rate. | Inclination. | Meridian. | Determining Stars. |
|---|---|---|---|---|---|---|
| 1863. | ″ | ″ | s | s | s | |
| Jan. 3 | ......... | ......... | − 0·32 | + 0·14 | + 0·18 | |
| 5 | + 2·5 | 0·0 | − 0·30 | + 0·14 | + 0·15 | |
| 6 | + 0·8 | + 0·2 | − 0·23 | + 0·14 | + 0·13 | 43 R. P. L. and γ¹ Eridani |
| 7 | + 0·4 | + 0·1 | − 0·27 | + 0·14 | + 0·08 | Procyon and δ Urs. Min. |
| 8 | + 1·1 | + 0·2 | − 0·35 | + 0·14 | + 0·16 | 33 R. P. L. and γ¹ Eridani. |
| 9 | + 1·1 | − 0·4 | − 0·60 | + 0·14 | + 0·16 | 33 R. P. L. and δ Urs. Min. |
| 10 | + 1·0 | − 0·4 | − 0·76 | + 0·14 | + 0·11 | 33 R. P. L. and δ Urs Min. |
| 12 | ......... | ......... | − 0·37 | + 0·14 | + 0·10 | |
| 14 | − 1·3 | + 0·3 | − 0·34 | + 0·16 | + 0·08 | 35 R. P. L. and δ Orionis. |
| 15 | − 1·5 | + 0·3 | − 0·38 | + 0·16 | + 0·31 | 34 R. P. L. and o¹ Eridani. |

The Inclination correction was determined about noon on December 15, 16, 30 in 1862 and also on January 15, 1863.

The Right Ascension micrometer was set to the corrected reading for no collimation before beginning to observe.

*Instrumental Corrections adopted in 1863.*

| Date. | Index. | Run in 5′ | Clock Rate. | Inclination. | Meridian. | Determining Stars |
|---|---|---|---|---|---|---|
| 1863. | ″ | ″ | s | s | s | |
| Jan. 16 | { − 1·3 / − 0·9 } | { + 0·1 / − 0·1 } | − 0·45 | + 0·15 | + 0·24 | 33 R. P. L. and Rigel. |
| 17 | − 1·1 | + 0·4 | − 0·40 | + 0·15 | + 0·21 | |
| 19 | − 1·2 | + 0·3 | − 0·21 | + 0·15 | + 0·15 | 51 Cephei and δ Urs. Min. |
| 20 | − 1·2 | + 0·2 | − 0·22 | + 0·15 | + 0·14 | 51 Cephei and δ Urs. Min. |
| 21 | − 2·1 | + 0·2 | − 0·18 | + 0·16 | + 0·10 | |
| 22 | − 2·1 | 0·0 | − 0·20 | + 0·16 | + 0·07 | 51 Cephei and α Columbæ. |
| 23 | 0·0 | + 0·1 | − 0·30 | + 0·17 | + 0·06 | |
| 24 | + 0·6 | 0.0 | − 0·31 | + 0·17 | + 0·06 | 51 Cephei and 131 R. P. L. |
| 29 | + 2·0 | + 0·1 | − 0·24 | + 0·19 | + 0·06 | 51 Cephei and Rigel. |
| 30 | + 2·0 | + 0·3 | − 0·24 | + 0·20 | + 0·04 | |
| Feb. 2 | + 2·5 | { + 0·4 / − 0·3 } | − 0·46 | + 0·22 | − 0·02 | 70 and 150 R. P. L. |
| 3 | + 2·0 | + 0·1 | − 0·42 | + 0·22 | + 0·05 | 51 Cephei and δ Urs. Min. |
| 4 | + 2·3 | + 0·2 | − 0·32 | + 0·22 | + 0·10 | Pollux and λ Urs. Min. |
| 5 | + 1·4 | + 0·1 | − 0·27 | + 0·22 | + 0·04 | 77 R. P. L. and ε Hydræ. |
| 6 | + 1·2 | 0·0 | − 0·23 | + 0·22 | + 0·13 | ε Leonis and 150 R. P. L. |
| 9 | + 1·2 | + 0·1 | − 0·08 | + 0·22 | + 0·05 | 51 Cephei and δ Urs. Min. |
| 10 | + 1·3 | 0·0 | − 0·11 | + 0·22 | + 0·04 | |
| 11 | + 0·7 | 0·0 | − 0·15 | + 0·22 | + 0·03 | 51 Cephei and δ Urs. Min. |
| 12 | + 1·0 | 0·0 | − 0·09 | + 0·23 | + 0·02 | |
| 13 | + 1·4 | 0·0 | − 0·08 | + 0·23 | 0·00 | Castor and δ Urs. Min. |
| 14 | + 1·0 | + 0·3 | − 0·11 | + 0·23 | 0·00 | |
| 16 | + 1·1 | + 0·2 | − 0·14 | + 0·24 | − 0·01 | |
| 17 | + 0·5 | + 0·3 | − 0·11 | + 0·24 | − 0·01 | 51 Cephei and δ Urs. Min. |
| 18 | + 0·3 | + 0·1 | − 0·23 | + 0·24 | − 0·01 | |
| 19 | ...... | ...... | − 0·31 | + 0·24 | − 0·01 | |
| 21 | + 0·5 | + 0·1 | − 0·33 | + 0·25 | − 0·01 | |

The Inclination correction was determined, between noon and 3 P.M., on January 16, 31 February 2, 5, 13.
The Right Ascension micrometer was set to the corrected reading for no collimation, except on January 16, when the observer during the second part of the night slightly misplaced it, leaving a correction of + 0·01 second.

*Instrumental Corrections adopted in 1863.*

| Date. | Index. | Run in 5′ | Clock Rate. | Inclination. | Meridian. | Determining Stars |
|---|---|---|---|---|---|---|
| 1863. | ″ | ″ | s | s | s | |
| Feb. 23 | − 0·6 | + 0·1 | − 0·39 | + 0·25 | − 0·01 | 51 Cephei and ν Orionis |
| 24 | − 1·5 | 0·0 | − 0·36 | + 0·24 | 0·00 | |
| 25 | − 1·2 | + 0·1 | − 0·35 | + 0·24 | + 0·02 | Pollux and λ Urs. Min. |
| 26 | − 1·1 | + 0·1 | − 0·31 | + 0·23 | + 0·03 | |
| 27 | − 1·2 | + 0·2 | − 0·17 | + 0·23 | + 0·05 | 60 R. P. L. and λ Urs. Min. |
| 28 | − 1·3 | + 0·2 | − 0·15 | + 0·22 | + 0·02 | |
| Mar. 2 | − 0·3<br>− 0·2<br>+ 0·3 | − 0·1<br>+ 0·9<br>− 0·1 | − 0·22 | + 0·21 | − 0·03 | 51 Cephei and δ Urs. Min. |
| 3 | − 0·5 | + 0·1 | − 0·18 | + 0·22 | 0·00 | 70 R. P. L. and λ Urs. Min. |
| 4 | − 1·0 | − 0·3 | − 0·24 | + 0·22 | 0·00 | Procyon and λ Urs. Min. |
| 5 | − 0·7 | + 0·4 | − 0·22 | + 0·23 | − 0·04 | 60 R. P. L. and λ Urs. Min. |
| 6 | − 1·3 | + 0·3 | − 0·21 | + 0·24 | − 0·05 | |
| 7 | − 1·3 | + 0·2 | − 0·36 | + 0·26 | − 0·06 | 70 R. P. L. and Spica. |
| 9 | − 1·0 | + 0·3 | − 0·36 | + 0·28 | − 0·04 | 60 and 150 R. P. L. |
| 11 | − 0·4 | + 0·2 | − 0·18 | + 0·31 | − 0·09 | |
| 12 | − 0·6 | + 0·1 | − 0·32 | + 0·32 | − 0·11 | 72 and 131 R. P. L. |
| 13 | − 0·8 | + 0·1 | − 0·32 | + 0·32 | − 0·11 | |
| 14 | − 0·7 | − 0·3 | + 0·30 | + 0·32 | − 0·11 | |
| 15 | ........ | ........ | + 0·30 | + 0·27 | − 0·11 | |
| 16 | − 0·3 | + 0·3 | + 0·09 | + 0·32 | − 0·10 | |
| 17 | − 0·4 | 0·0 | − 0·05 | + 0·32 | − 0·09 | 60 R. P. L. and α Hydræ |
| 18 | 0·0 | − 0·3 | + 0·06 | + 0·32 | − 0·11 | 60 and 150 R. P. L. |
| 19 | − 0·1 | − 0·1 | − 0·21 | + 0·32 | − 0·11 | |
| 20 | − 0·8 | 0·0 | − 0·37 | + 0·33 | − 0·13 | 89 and 158 R. P. L. |
| 23 | − 0·8 | + 0·2 | + 0·03 | + 0·33 | − 0·13 | |
| 24 | − 1·0 | + 0·2 | + 0·06 | + 0·33 | − 0·13 | 89 and 158 R. P. L. |
| 27 | − 1·1 | + 0·2 | − 0·02 | + 0·33 | − 0·14 | |
| 28 | − 1·0 | + 0·2 | − 0·00 | + 0·33 | − 0·16 | 89 and 155 R. P. L. |

The Clock tripped two seconds in winding on March 14th. Stopped it and adjusted the pendulum.
The Inclination correction was determined, between noon and 5 P.M., on February 23, March 2, 4, 12, 20.
The Right Ascension micrometer was set to the corrected reading for its collimation before beginning to observe.

## *Instrumental Corrections adopted in 1863.*

| Date. | Index. | Run in 5′ | Clock Rate. | Inclination. | Meridian. | Determining Stars. |
|---|---|---|---|---|---|---|
| 1863. | ″ | ″ | s | s | s | |
| Mar 27 | − 1·6 | + 0·3 | − 0·10 | + 0·32 | − 0·15 | |
| 28 | − 1·0 | + 0·3 | − 0·13 | + 0·32 | − 0·14 | 89 and 158 R. P. L. |
| 30 | − 1·0 | + 0·2 | − 0·20 | + 0·32 | − 0·14 | |
| 31 | − 0·5 | + 0·2 | − 0·12 | + 0·32 | − 0·13 | 89 and 158 R. P. L. |
| Apl. 1 | { − 0·9<br>0·0<br>− 0·3 } | { + 0·3<br>+ 0·5<br>+ 0·3 } | − 0·07 | + 0·33 | − 0·14 | 3 Virginis and Polaris. |
| 4 | ......... | ......... | 0·00 | + 0·33 | − 0·18 | |
| 6 | ......... | ......... | − 0·01 | + 0·33 | − 0·19 | |
| 8 | − 1·2 | − 0·1 | − 0·07 | − 0·04 | − 0·21 | 70 R. P. L. and Polaris. |
| 9 | − 1·1 | + 0·1 | − 0·12 | − 0·01 | − 0·19 | |
| 10 | − 2·1 | + 0·3 | − 0·11 | + 0·02 | − 0·17 | 70 R. P. L. and Polaris. |
| 11 | − 1·7 | + 0·4 | − 0·07 | + 0·02 | − 0·18 | |
| 13 | − 1·0 | − 0·2 | − 0·17 | + 0·02 | − 0·19 | 70 R. P. L. and Polaris. |
| 14 | − 1·0 | − 0·3 | − 0·14 | + 0·02 | − 0·17 | |
| 15 | − 1·7 | − 0·2 | − 0·22 | + 0·03 | − 0·15 | 70 R. P. L. and Polaris. |
| 16 | − 1·2 | + 0·3 | − 0·29 | + 0·04 | − 0·15 | |
| 17 | − 1·3 | − 0·2 | − 0·16 | + 0·04 | − 0·16 | *l* Leonis and Polaris. |
| 18 | − 1·3 | + 0·3 | − 0·14 | + 0·05 | − 0·15 | |
| 23 | − 0·4 | + 0·3 | − 0·30 | + 0·06 | − 0·12 | 89 and 159 R. P. L. |
| 27 | + 0·8 | − 0·6 | − 0·24 | + 0·07 | − 0·08 | 89 R. P. L. and δ Crateris. |
| 28 | { + 0·4<br>+ 2·2 } | { − 0·6<br>+ 0·5 } | − 0·05 | + 0·07 | − 0·05 | Regulus and Polaris. |
| 29 | + 0·1 | − 0·6 | − 0·01 | + 0·07 | − 0·08 | |
| 30 | + 0·6 | − 0·6 | − 0·17 | + 0·08 | − 0·11 | 72 and 150 R. P. L. |
| May 1 | { − 0·1<br>+ 1·8 } | { − 0·6<br>+ 0·5 } | − 0·17 | + 0·08 | − 0·14 | |
| 2 | { + 0·7<br>+ 1·7 } | { − 0·6<br>+ 0·5 } | − 0·13 | + 0·08 | − 0·16 | 89 and 158 R. P. L. |
| 4 | 0·0 | + 0·4 | − 0·44 | + 0·07 | − 0·14 | |

The eye-end of the telescope was removed on April 7, to have the polar distance micrometer repaired by Mr. F. Doderet. The collimators and the inclination correction were adjusted.

The Inclination correction was determined, between 2 and 7 P.M., on March 31, April 1, 7, 10, 15, 16 and May 1.

The Right Ascension micrometer was set to the corrected reading for no collimation before beginning to observe.

*Instrumental Corrections adopted in 1863.*

| Date. | Index. | Run in 5′ | Clock Rate. | Inclina-tion. | Meridian. | Determining Stars. |
|---|---|---|---|---|---|---|
| 1863 | ″ | ″ | s | s | s | |
| May 5 | + 0·6 | + 0·4 | − 0·35 | + 0·07 | − 0·13 | |
| 6 | − 0·1 | + 0·2 | − 0·17 | + 0·07 | − 0·12 | 89 R. P. L. and δ Crateris. |
| 7 | − 0·1 | − 0·1 | − 0·27 | + 0·07 | − 0·14 | |
| 8 | + 0·4 | 0·0 | − 0·21 | + 0·07 | − 0·15 | |
| 9 | − 0·4 | 0·0 | − 0·14 | + 0·06 | − 0·17 | 111 R. P. L. and Polaris. |
| 11 | + 0·6 | − 0·1 | − 0·18 | + 0·06 | − 0·18 | |
| 12 | + 1·2 | 0·0 | − 0·21 | + 0·06 | − 0·18 | |
| 15 | 0·0 | − 0·3 | − 0·13 | + 0·05 | − 0·20 | |
| 16 | + 3·4 | + 0·2 | − 0·16 | + 0·04 | − 0·20 | |
| 18 | + 4·0 | + 0·2 | − 0·29 | + 0·03 | − 0·21 | 5 Virginis and Polaris. |
| 19 | + 3·5 | + 0·2 | − 0·47 | + 0·03 | − 0·21 | 108 R. P. L. and Polaris. |
| 20 | + 3·0 | + 0·2 | − 0·44 | + 0·04 | − 0·20 | |
| 21 | + 2·9 | + 0·2 | − 0·27 | + 0·04 | − 0·19 | |
| 22 | + 2·9 | + 0·2 | − 0·34 | + 0·05 | − 0·18 | |
| 23 | + 3·2 | + 0·2 | − 0·29 | + 0·05 | − 0·16 | |
| 26 | + 2·9 | + 0·2 | − 0·14 | + 0·06 | − 0·13 | 99 R. P. L. and Polaris |
| 27 | + 2·8 | + 0·2 | − 0·20 | + 0·07 | − 0·12 | |
| 28 | + 2·2 | + 0·2 | − 0·28 | + 0·07 | − 0·12 | ε Bootis and 35 R. P. L. |
| 29 | + 2·5 | + 0·2 | − 0·32 | + 0·08 | − 0·16 | |
| 30 | + 2·6 | + 0·2 | − 0·31 | + 0·08 | − 0·19 | β and 5 Urs. Min. and β¹ Scorpii. |
| June 1 | + 2·0 | + 0·2 | − 0·18 | + 0·09 | − 0·06 | 99 R. P. L. and β Corvi. |
| 2 | + 2·4 | + 0·2 | − 0·18 | + 0·09 | − 0·06 | ρ Bootis and Polaris |
| 3 | + 2·4 | + 0·2 | − 0·16 | + 0·09 | − 0·11 | |
| 4 | + 1·5 | + 0·2 | − 0·15 | + 0·09 | − 0·19 | ε Urs. Min. and ρ Capricorni. |
| 5 | + 1·9 | + 0·2 | − 0·22 | + 0·08 | − 0·14 | |
| 9 | + 2·5 | + 7·2 | + 0·11 | + 0·08 | − 0·06 | ε Urs. Min. and Polaris, 10 R. P. L. |
| 10 | + 1·6 | + 0·2 | + 0·13 | + 0·08 | − 0·06 | 90 R. P. L. and Polaris. |

The microscopes were adjusted on May 16.
The Inclination correction was determined, between 2 and 4 P.M., on May 16, 18 and June 1.
The Right Ascension micrometer was set to the corrected reading for no collimation before beginning to observe.

*Instrumental Corrections adopted in 1863.*

| Date. | Index. | Run in 5′ | Clock Rate. | Inclination. | Meridian. | Determining Stars |
|---|---|---|---|---|---|---|
| 1863. | ″ | ″ | s | s | s | |
| June 11 | + 1·6 | + 0·2 | + 0·04 | + 0·08 | − 0·06 | δ Urs. Min and Polaris. |
| 18 | + 2·0 | + 0·2 | − 0·12 | + 0·07 | − 0·09 | |
| 20 | + 1·2 | + 0·2 | − 0·12 | + 0·06 | − 0·10 | |
| 23 | + 1·3 | + 0·2 | − 0·06 | + 0·05 | − 0·11 | |
| 26 | + 1·2 | + 0·2 | − 0·11 | + 0·04 | − 0·13 | |
| 27 | + 0·6 | + 0·2 | − 0·19 | + 0·03 | − 0·13 | ε Urs. Min. and β Libræ. |
| 29 | + 1·8 | + 0·2 | − 0·27 | + 0·03 | − 0·03 | δ Urs. Min. and 51 Cephei. |
| 30 | + 1·3 | + 0·2 | − 0·06 | + 0·02 | − 0·05 | 116 R. P. L., ε Urs. Min. and κ Ophiuchi. |
| July 1 | + 0·5 | − 0·2 | − 0·02 | + 0·02 | − 0·05 | |
| 2 | + 0·4 | − 0·2 | − 0·09 | + 0·03 | 0·00 | δ Urs. Min. and $\alpha^2$ Capricorni. |
| 3 | + 0·1 | − 0·2 | − 0·04 | + 0·04 | 0·00 | |
| 10 | + 0·8 | − 0·2 | − 0·08 | + 0·09 | 0·00 | 131 R. P. L. and $\alpha^2$ Libræ. |
| 11 | + 1·0 | − 0·2 | − 0·06 | + 0·10 | 0·00 | |
| 13 | + 1·2 | − 0·2 | + 0·07 | + 0·12 | 0·00 | |
| 14 | + 0·9 | 0·0 | + 0·07 | + 0·12 | 0·00 | |
| 16 | + 2·6 | 0·0 | + 0·17 | + 0·13 | + 0·01 | |
| 18 | + 2·8 | 0·0 | + 0·09 | + 0·11 | + 0·01 | |
| 20 | + 3·1 | 0·0 | − 0·16 | + 0·09 | + 0·01 | ε, δ Urs. Min. and θ Ophiuchi. |
| 23 | + 3·8 | 0·0 | − 0·11 | + 0·06 | 0·00 | |
| 28 | + 2·5 | 0·0 | − 0·11 | + 0·02 | − 0·02 | |
| 29 | + 2·8 | 0·0 | − 0·10 | + 0·01 | − 0·03 | ε Urs. Min. and α Pavonis. |
| 31 | + 2·7 | 0·0 | − 0·05 | − 0·01 | − 0·03 | δ Urs. Min. and 72 R. P. L. |
| Aug. 3 | + 2·0 | − 0·2 | + 0·04 | − 0·04 | − 0·04 | |
| 7 | + 1·9 | − 0·2 | − 0·08 | − 0·07 | − 0·05 | |
| 12 | + 1·7 | − 0·2 | − 0·19 | − 0·10 | − 0·06 | 131 R. P. L. and $\mu^1$ Sagittarii. |
| 15 | + 1·9 | − 0·2 | − 0·11 | − 0·11 | − 0·05 | |
| 18 | + 2·3 | + 0·4 | − 0·05 | − 0·11 | − 0·04 | 150 and 72 R. P. L. |
| 22 | + 2·9 | + 0·4 | − 0·02 | − 0·05 | − 0·10 | δ Urs. Min. and $\lambda^1$ Sagittarii. |

The Inclination correction was determined, between 2 and 4 P.M., on June 16, July 1, 16, August 1, 10, 17, 22.

The Right Ascension micrometer was set to the corrected reading for no collimation before beginning to observe.

*Instrumental Corrections adopted in 1863.*

| Date. | Index. | Run in 5′ | Clock Rate. | Inclination. | Collimation. | Meridian. | Determining Stars |
|---|---|---|---|---|---|---|---|
| 1863 | ″ | ″ | s | s | s | s | |
| Aug. 24 | + 2·5 | + 0·4 | + 0·03 | − 0·06 | 0·00 | − 0·03 | δ, λ Urs. Min., 131 R. P. L. and 60 R. P. L. |
| 26 | + 2·3 | + 0·4 | + 0·06 | − 0·07 | 0·00 | − 0·04 | |
| 27 | + 2·4 | + 0·4 | + 0·09 | − 0·08 | 0·00 | − 0·04 | 150 R. P. L., λ Urs. Min. and ρ Capricorni |
| 28 | + 2·0 | − 0·2 | − 0·01 | − 0·08 | 0·00 | 0·00 | |
| 29 | + 2·4 | + 0·4 | − 0·14 | − 0·09 | 0·00 | + 0·03 | Polaris and 89 R. P. L. |
| 31 | + 2·0 | + 0·4 | − 0·10 | − 0·10 | 0·00 | + 0·01 | |
| Sep. 4 | + 2·0 | − 0·2 | − 0·16 | − 0·10 | 0·00 | − 0·04 | |
| 8 | + 2·2 | − 0·2 | − 0·34 | − 0·10 | 0·00 | − 0·08 | |
| 12 | + 2·1 | − 0·2 | − 0·38 | − 0·11 | 0·00 | − 0·13 | λ Urs. Min. and β Aquilæ |
| 14 | + 1·9 | − 0·2 | − 0·25 | − 0·11 | 0·00 | − 0·03 | 131 and 60 R. P. L. |
| 15 | + 1·9 | − 0·2 | − 0·26 | − 0·11 | 0·00 | − 0·03 | |
| 18 | + 2·1 | 0·0 | − 0·25 | − 0·11 | 0·00 | − 0·01 | |
| 23 | + 2·4 | 0·0 | − 0·14 | − 0·11 | 0·00 | − 0·05 | |
| 25 | + 1·6 | 0·0 | − 0·12 | − 0·11 | 0·00 | − 0·05 | 150, 151 R. P. L. and ν Aquarii. |
| 26 | + 1·6 | 0·0 | − 0·19 | − 0·16 | − 0·03 | − 0·05 | |
| 28 | + 1·7 | 0·0 | − 0·29 | − 0·13 | 0·00 | − 0·06 | 158 and 89 R. P. L. |
| 30 | + 2·1 | 0·0 | − 0·31 | − 0·09 | + 0·05 | − 0·06 | |
| Oct. 1 | + 1·2 | − 0·2 | − 0·17 | − 0·03 | + 0·06 | − 0·05 | |
| 2 | + 1·1 | − 0·2 | − 0·13 | + 0·01 | 0·00 | − 0·05 | |
| 3 | + 1·2 | − 0·2 | − 0·26 | − 0·08 | − 0·02 | − 0·05 | |
| 5 | + 1·0 | − 0·2 | − 0·15 | − 0·06 | − 0·01 | − 0·04 | |
| 6 | + 0·6 | 0·2 | − 0·09 | − 0·07 | − 0·02 | − 0·04 | 142 and 60 R. P. L. |
| 7 | + 0·8 | − 0·2 | − 0·11 | − 0·12 | − 0·03 | − 0·03 | |
| 8 | + 0·5 | − 0·2 | − 0·17 | − 0·11 | − 0·03 | − 0·03 | 150 R. P. L., 24 Capricorni [illegible] ρ Capricorni |

The Inclination correction was determined, between 2 and 4 p.m., on August 31, Sep. 16, 24.

The Right Ascension micrometer was set to the corrected reading for no collimation, before beginning to observe, up to September 25.

The Inclination and Collimation and corrections were determined each night, during observing hours by the Assistant on duty, from September 26, the Meridian correction also whenever polar stars were available.

*Instrumental Corrections adopted in 1863.*

| Date. | Index. | Run in 5'. | Clock Rate. | Inclination. | Collimation. | Meridian. | Determining Stars. |
|---|---|---|---|---|---|---|---|
| 1863. | " | " | s | s | s | s | |
| Oct. 9 | + 1·0 | − 0·2 | − 0·14 | − 0·10 | − 0·02 | 0·00 | |
| 10 | + 0·6 | − 0·2 | − 0·08 | − 0·07 | − 0·02 | 0·02 | 150 and 70 R. P. L. |
| 13 | + 0·4 | − 0·2 | + 0·04 | − 0·01 | 0·00 | 0·00 | |
| 14 | + 1·0 | − 0·2 | − 0·12 | − 0·17 | − 0·06 | 0·00 | |
| 16 | + 4·2 | + 0·2 | − 0·31 | − 0·19 | − 0·05 | 0·00 | 150 R. P. L. and Fomalhaut. |
| 17 | + 4·3 | + 0·2 | − 0·23 | − 0·23 | − 0·05 | + 0·03 | 158 and 99 R. P. L. |
| 23 | + 8·0 | + 0·2 | − 0·26 | − 0·31 | − 0·05 | + 0·16 | 150 and 69 R. P. L. |
| 24 | + 8·3 | + 0·2 | − 0·26 | − 0·25 | − 0·02 | + 0·16 | |
| 26 | + 8·7 | + 0·2 | − 0·31 | − 0·23 | − 0·01 | + 0·16 | Polaris and δ Sculptoris. |
| 27 | + 8·1 | + 0·2 | − 0·32 | − 0·18 | − 0·01 | + 0·16 | Polaris and 108 R. P. L. |
| 28 | + 8·0 | + 0·2 | − 0·28 | − 0·16 | − 0·02 | + 0·16 | |
| 29 | + 6·7 | + 0·2 | − 0·49 | − 0·12 | − 0·01 | + 0·15 | |
| 30 | + 6·3 | + 0·2 | − 0·59 | − 0·14 | + 0·01 | + 0·15 | |
| 31 | + 6·0 | + 0·2 | − 0·41 | − 0·16 | − 0·02 | + 0·14 | 158 and 89 R. P. L. |
| Nov. 2 | + 6·1 | − 0·2 | − 0·28 | − 0·12 | + 0·02 | + 0·22 | 150 and 72 R. P. L. |
| 3 | + 4·8 | − 0·2 | − 0·43 | − 0·20 | − 0·02 | + 0·27 | |
| 4 | + 4·8 | − 0·2 | − 0·44 | − 0·11 | + 0·04 | + 0·33 | 150 and 89 R. P. L. |
| 5 | + 4·1 | − 0·2 | − 0·50 | − 0·17 | − 0·01 | + 0·23 | ι Piscium and 92 R. P. L. |
| 6 | + 5·2 | − 0·2 | − 0·59 | − 0·15 | + 0·04 | + 0·21 | |
| 7 | + 2·8 | − 0·2 | − 0·41 | − 0·12 | + 0·05 | + 0·20 | |
| 9 | + 2·8 | − 0·2 | − 0·33 | − 0·19 | − 0·02 | + 0·17 | 158 and 108 R. P. L. |
| 11 | + 2·9 | − 0·2 | − 0·39 | − 0·18 | − 0·06 | + 0·14 | |
| 13 | + 2·5 | − 0·2 | − 0·20 | − 0·13 | − 0·01 | + 0·11 | |
| 14 | + 2·8 | − 0·2 | − 0·16 | − 0·20 | − 0·06 | + 0·10 | 26 and 89 R. P. L. |
| 18 | + 2·2 | + 0·2 | − 0·29 | − 0·17 | − 0·03 | + 0·03 | Polaris and Achernar |
| 20 | + 3·4 | + 0·2 | − 0·41 | − 0·23 | − 0·10 | + 0·04 | |
| 21 | + 2·6 | + 0·2 | − 0·44 | − 0·18 | − 0·03 | + 0·05 | 35 and 116 R. P. L. |
| 23 | + 2·5 | + 0·2 | − 0·36 | − 0·24 | − 0·05 | + 0·12 | |
| 24 | + 3·0 | + 0·2 | − 0·44 | − 0·20 | − 0·03 | + 0·15 | |

*Instrumental Corrections adopted in 1863.*

| Date. | Index. | Run in 5.′ | Clock Rate. | Inclination. | Collimation. | Meridian. | Determining Star. |
|---|---|---|---|---|---|---|---|
| 1863. | ″ | ″ | s | s | s | s | |
| Nov. 25 | + 2·1 | + 0·2 | − 0·42 | − 0·17 | − 0·03 | + 0·19 | 26, 34 R. P. L. and $\gamma^1$ Eridani. |
| 26 | + 2·0 | + 0·2 | − 0·36 | − 0·19 | − 0·01 | + 0·15 | 26, 34 and 116 R. P. L. |
| 27 | + 1·6 | + 0·2 | − 0·41 | − 0·22 | 0·00 | + 0·11 | |
| 28 | + 1·6 | + 0·2 | − 0·43 | − 0·20 | + 0·01 | + 0·07 | |
| 30 | + 1·4 | + 0·2 | − 0·49 | − 0·27 | − 0·06 | 0·00 | Polaris and Achernar. |
| Dec. 7 | + 6·0 | − 0·2 | − 0·72 | − 0·06 | − 0·02 | + 0·33 | 33 and 103 R. P. L. |
| 8 | + 6·2 | − 0·2 | − 0·55 | − 0·05 | + 0·01 | + 0·32 | 40 and 67 R. P. L. |
| 9 | + 6·1 | − 0·2 | − 0·48 | − 0·11 | − 0·04 | + 0·30 | |
| 10 | + 5·0 | − 0·2 | − 0·50 | − 0·15 | + 0·03 | + 0·27 | |
| 11 | + 5·1 | − 0·2 | − 0·40 | − 0·18 | + 0·01 | + 0·25 | 35 R. P. L. and 67 Ceti. |
| 12 | + 3·8 | − 0·2 | − 0·39 | − 0·22 | + 0·01 | + 0·21 | Polaris and 111 R. P. L. |
| 14 | + 4·8 | − 0·2 | − 0·43 | − 0·19 | + 0·01 | + 0·19 | |
| 15 | + 3·5 | − 0·2 | − 0·49 | − 0·23 | − 0·02 | + 0·18 | 33 and 114 R. P. L. |
| 16 | + 3·2 | + 0·2 | − 0·54 | − 0·23 | − 0·05 | + 0·13 | |
| 17 | + 4·9 | + 0·3 | − 0·52 | − 0·27 | − 0·06 | + 0·08 | Polaris and 111 R. P. L. |
| 18 | + 3·5 | + 0·2 | − 0·56 | − 0·28 | − 0·06 | + 0·10 | |
| 19 | + 2·9 | + 0·2 | − 0·58 | − 0·28 | − 0·05 | + 0·13 | |
| 21 | + 3·2 | + 0·2 | − 0·62 | − 0·21 | − 0·02 | + 0·18 | |
| 22 | + 2·8 | + 0·2 | − 1·31 | − 0·22 | − 0·02 | + 0·20 | Polaris and Achernar. |
| 23 | + 2·6 | + 0·2 | − 1·58 | − 0·14 | + 0·02 | + 0·17 | 35 and 111 R. P. L. |
| 24 | + 2·9 | + 0·2 | − 0·90 | − 0·20 | − 0·01 | + 0·17 | |
| 25 | + 2·5 | + 0·2 | − 0·66 | − 0·21 | − 0·02 | + 0·18 | |
| 26 | + 2·3 | + 0·2 | − 0·63 | − 0·18 | − 0·01 | + 0·17 | |
| 29 | + 2·7 | − 0·2 | − 0·57 | − 0·18 | − 0·01 | + 0·16 | |
| 30 | + 1·9 | − 0·2 | − 0·62 | − 0·21 | − 0·01 | + 0·16 | |
| 31 | + 0·9 | − 0·2 | − 0·62 | − 0·17 | + 0·02 | + 0·15 | |

Sudden and considerable changes in the Index, Inclination and Meridian corrections usually occur after heavy rain, instances of which may be seen after October 14th and November 30th in the preceding table. Buildings resting upon massive foundations like the Observatory are up-heaved as a block and slightly tilted, slowly recovering their positions as the rain leaves the sandy soil, by drainage and evaporation. Where the foundations are less solid, cracked walls and too frequent collapses are the familiar results of a heavy downpour, as may be noticed after every rainy season in Madras.

*Instrumental Corrections adopted in 1864.*

| Date | Index | Run in 5' | Clock Rate | Inclination. | Collimation. | Meridian | Determining Stars. |
|---|---|---|---|---|---|---|---|
| 1864 | " | " | s | s | s | s | |
| Jan 1 | + 1·0 | − 0·1 | − 0·59 | − 0·17 | + 0·01 | + 0·15 | |
| 2 | + 0·4 | − 0·1 | − 0·59 | − 0·16 | + 0·04 | + 0·15 | Polaris and $\theta^1$ Ceti. |
| 4 | + 0·6 | − 0·1 | − 0·43 | − 0·23 | − 0·04 | + 0·08 | 34 and 116 R. P. I. |
| 5 | + 0·1 | − 0·1 | − 0·41 | − 0·21 | − 0·04 | + 0·06 | |
| 6 | + 0·2 | − 0·1 | − 0·57 | − 0·23 | − 0·04 | 0·00 | 51 Cephei and δ Urs. Min. |
| 7 | − 0·6 | − 0·1 | − 0·62 | − 0·16 | − 0·01 | + 0·01 | |
| 11 | − 1·4 | − 0·1 | − 0·61 | − 0·21 | − 0·03 | + 0·07 | 51 Cephei and δ Urs. Min |
| 12 | − 2·3 | − 0·1 | − 0·63 | − 0·18 | + 0·02 | + 0·09 | |
| 15 | − 1·5 | − 0·1 | − 0·54 | − 0·14 | + 0·05 | + 0·14 | 51 Cephei and δ Urs. Min. |
| 16 | − 2·7 | − 0·1 | − 0·54 | − 0·17 | + 0·03 | + 0·10 | |
| 18 | − 1·7 | − 0·1 | − 0·06 | − 0·18 | − 0·01 | + 0·02 | |
| 19 | − 1·7 | − 0·1 | − 0·06 | − 0·21 | − 0·04 | − 0·02 | 51 Cephei and δ Urs. Min. |
| 20 | − 2·2 | − 0·1 | − 0·08 | − 0·19 | − 0·01 | + 0·03 | |
| 21 | − 2·5 | − 0·1 | − 0·06 | − 0·18 | 0·00 | + 0·08 | |
| 22 | − 3·0 | − 0·1 | + 0·05 | − 0·21 | − 0·02 | + 0·12 | 51 Cephei and ε Urs. Min. |
| 23 | − 3·6 | − 0·1 | + 0·02 | − 0·24 | − 0·05 | + 0·11 | |
| 25 | − 2·8 | 0·0 | − 0·02 | − 0·36 | − 0·12 | + 0·10 | |
| 26 | − 2·6 | 0·0 | − 0·05 | − 0·35 | − 0·08 | + 0·09 | 6 Cancri and λ Urs. Min. |
| 27 | − 2·9 | 0·0 | − 0·03 | − 0·36 | − 0·09 | − 0·04 | |
| 28 | − 2·8 | 0·0 | + 0·02 | − 0·39 | − 0·10 | − 0·17 | 51 Cephei and 111 R. P. I. |
| 29 | − 2·8 | 0·0 | − 0·06 | − 0·43 | − 0·15 | − 0·14 | |
| 30 | − 2·4 | 0·0 | − 0·02 | − 0·36 | − 0·03 | − 0·12 | |
| Feb 1 | − 2·8 | 0·0 | + 0·14 | − 0·31 | − 0·04 | − 0·07 | 43 R. P. I. and δ Urs. Min. |
| 2 | − 2·9 | 0·0 | + 0·08 | − 0·31 | − 0·05 | − 0·05 | |
| 3 | − 3·0 | − 0·1 | + 0·14 | − 0·22 | 0·00 | − 0·03 | α Orionis and δ Urs. Min. |
| 4 | − 2·7 | 0·0 | + 0·26 | − 0·28 | − 0·04 | − 0·05 | |
| 5 | − 2·8 | 0·0 | + 0·24 | − 0·33 | − 0·10 | − 0·06 | |
| 8 | − 3·4 | 0·0 | + 0·12 | − 0·27 | − 0·06 | − 0·11 | 51 Cephei and α Columbae. |
| 9 | − 3·3 | − 0·1 | + 0·03 | − 0·25 | − 0·06 | − 0·03 | 51 Cephei and ε Urs. Min. |
| 10 | − 3·3 | − 0·1 | + 0·07 | − 0·21 | − 0·03 | − 0·05 | |

The Transit clock rate was changed 0·5 second, after the observation on January 16th.

*Instrumental Corrections adopted in 1864.*

| Date. | Index. | Run in 5′ | Clock Rate. | Inclination. | Collimation. | Meridian. | Determining Stars. |
|---|---|---|---|---|---|---|---|
| 1864 | ″ | ″ | s | s | s | s | |
| Feb. 11 | − 2·9 | − 0·1 | 0·00 | − 0·27 | − 0·06 | − 0·08 | 40 R. P. L. and δ Urs. Min. |
| 12 | − 2·6 | − 0·1 | − 0·03 | − 0·24 | − 0·04 | − 0·06 | |
| 13 | − 2·7 | − 0·1 | + 0·09 | − 0·27 | − 0·05 | − 0·04 | |
| 15 | − 2·1 | 0·0 | + 0·01 | − 0·22 | − 0·01 | + 0·01 | 49 R. P. L. and δ Urs. Min. |
| 16 | − 2·5 | + 0·1 | − 0·03 | − 0·26 | − 0·03 | − 0·06 | 51 Cephei and δ Urs. Min. |
| 17 | − 2·5 | + 0·1 | + 0·07 | − 0·19 | − 0·01 | − 0·09 | |
| 18 | − 2·6 | + 0·1 | + 0·28 | − 0·21 | − 0·03 | − 0·11 | |
| 19 | − 2·2 | + 0·1 | + 0·04 | − 0·18 | − 0·07 | − 0·14 | 51 Cephei and λ Urs. Min. |
| 21 | ...... | ... | − 0·26 | − 0·10 | − 0·03 | − 0·12 | |
| 22 | − 2·7 | + 0·1 | + 0·07 | − 0·06 | + 0·01 | − 0·11 | |
| 23 | − 2·4 | + 0·1 | − 0·12 | − 0·21 | − 0·06 | − 0·11 | |
| 24 | − 2·1 | + 0·1 | + 0·01 | − 0·17 | − 0·03 | − 0·10 | |
| 25 | − 2·7 | + 0·1 | + 0·13 | − 0·15 | − 0·01 | − 0·09 | |
| 26 | − 2·2 | + 0·1 | + 0·22 | − 0·13 | 0·00 | − 0·08 | 51 Cephei and λ Urs. Min. |
| 29 | − 1·7 | 0·0 | + 0·26 | − 0·13 | − 0·02 | − 0·12 | |
| Mar. 1 | − 1·3 | 0·0 | + 0·32 | − 0·09 | − 0·01 | − 0·14 | 70 and 150 R. P. L. |
| 2 | − 2·1 | 0·0 | + 0·25 | − 0·18 | − 0·07 | − 0·16 | |
| 3 | − 2·3 | 0·0 | + 0·22 | − 0·11 | − 0·02 | − 0·19 | 51 Cephei and 24 Cephei. |
| 4 | − 2·1 | 0·0 | + 0·27 | − 0·16 | − 0·06 | − 0·18 | |
| 5 | − 2·4 | 0·0 | + 0·21 | − 0·21 | − 0·07 | − 0·17 | 51 Cephei and 150 R. P. L. |
| 7 | − 1·8 | 0·0 | + 0·32 | − 0·10 | − 0·01 | − 0·18 | |
| 8 | − 2·0 | 0·0 | + 0·32 | − 0·20 | − 0·06 | − 0·19 | |
| 9 | − 1·9 | 0·0 | + 0·25 | − 0·22 | − 0·07 | − 0·20 | 49 and 150 R. P. L. |
| 10 | − 2·2 | 0·0 | + 0·14 | − 0·23 | − 0·07 | − 0·19 | |
| 11 | − 1·8 | 0·0 | + 0·07 | − 0·21 | − 0·04 | − 0·18 | |
| 14 | − 2·0 | 0·0 | + 0·21 | − 0·20 | − 0·04 | − 0·14 | 70 and 150 R. P. L. |
| 15 | − 1·9 | 0·0 | + 0·15 | − 0·17 | − 0·02 | − 0·10 | |
| 16 | − 2·1 | + 0·1 | + 0·17 | − 0·09 | + 0·03 | − 0·06 | [illegible] and 143 R. P. L. |
| 17 | − 1·5 | + 0·1 | + 0·30 | − 0·11 | + 0·02 | − 0·11 | |
| 18 | − 1·8 | + 0·1 | [illegible] | − 0·12 | + 0·02 | − 0·12 | |

*Instrumental Corrections adopted in 1864.*

| Date. | Index. | Run in 5′. | Clock Rate. | Inclination. | Collimation. | Meridian. | Determining Stars. |
|---|---|---|---|---|---|---|---|
| 1864 | ″ | ″ | s | s | s | s | |
| Mar 19 | − 1·4 | + 0·1 | + 0·29 | − 0·10 | 0·00 | − 0·20 | 60 R. P. L. and 24 Cephei. |
| 21 | − 1·9 | + 0·1 | + 0·24 | − 0·07 | + 0·01 | − 0·17 | |
| 22 | − 2·0 | + 0·1 | + 0·25 | − 0·07 | + 0·03 | − 0·16 | |
| 23 | − 1·5 | + 0·1 | + 0·24 | − 0·10 | − 0·01 | − 0·15 | 60 and 158 R. P. L. |
| 30 | − 1·0 | + 0·1 | + 0·25 | − 0·05 | 0·00 | − 0·17 | |
| 31 | − 0·8 | + 0·1 | + 0·33 | − 0·05 | + 0·02 | − 0·17 | 72 and 158 R. P. L. |
| Apl 1 | − 0·6 | − 0·3 | + 0·36 | − 0·02 | − 0·05 | − 0·18 | |
| 2 | − 0·9 | − 0·3 | + 0·24 | − 0·08 | − 0·03 | − 0·20 | 70 R. P. L. and Polaris. |
| 4 | − 1·1 | − 0·3 | − 0·06 | − 0·12 | − 0·03 | − 0·21 | |
| 5 | − 0·5 | − 0·3 | − 0·06 | − 0·10 | − 0·03 | − 0·21 | |
| 6 | − 1·4 | − 0·3 | − 0·10 | − 0·09 | − 0·03 | − 0·21 | 89 R. P. L. and Polaris. |
| 7 | − 0·3 | − 0·3 | − 0·30 | − 0·09 | − 0·03 | − 0·21 | |
| 8 | − 0·8 | − 0·3 | − 0·17 | − 0·07 | − 0·02 | − 0·22 | |
| 9 | − 0·5 | − 0·3 | − 0·21 | − 0·07 | − 0·02 | − 0·22 | |
| 11 | ...... .. | ...... | − 0·02 | − 0·07 | − 0·02 | − 0·23 | |
| 12 | − 0·4 | − 0·3 | + 0·11 | − 0·06 | − 0·02 | − 0·23 | 60 and 150 R. P. L. |
| 13 | − 0·7 | − 0·3 | − 0·08 | − 0·07 | − 0·03 | − 0·23 | |
| 14 | − 0·1 | − 0·3 | + 0·01 | − 0·07 | 0.00 | − 0·22 | |
| 15 | + 0·4 | − 0·3 | − 0·06 | − 0·05 | + 0·01 | − 0·22 | 72 and 150 R. P. L. |
| 16 | − 0·4 | + 0·1 | − 0·13 | − 0·07 | 0·00 | − 0·19 | 72 R. P. L. and Polaris |
| 18 | − 0·5 | + 0·1 | + 0·09 | − 0·06 | + 0·02 | − 0·21 | |
| 19 | − 0·9 | + 0·1 | + 0·17 | − 0·05 | + 0·03 | − 0·22 | |
| 20 | − 0·4 | + 0·1 | + 0·09 | − 0·10 | − 0·02 | − 0·23 | |
| 21 | − 0·7 | + 0·1 | + 0·03 | − 0·09 | 0·00 | − 0·24 | γ Urs Maj. and Polaris. |
| 22 | 0·0 | + 0·1 | + 0·14 | − 0·05 | + 0·02 | − 0·24 | |
| 23 | − 0·4 | + 0·1 | + 0·17 | − 0·04 | + 0·02 | − 0·25 | |
| 25 | − 0·2 | + 0·1 | + 0·15 | − 0·03 | + 0·01 | − 0·26 | |
| 26 | 0·0 | + 0·1 | + 0·11 | − 0·05 | − 0·01 | − 0·26 | 101 R. P. L. and Polaris. |
| 27 | + 0·2 | + 0·1 | + 0·07 | − 0·03 | + 0·01 | − 0·24 | |
| 28 | − 0·4 | + 0·1 | − 0·06 | − 0·03 | 0·00 | − 0·23 | |

*Instrumental Corrections adopted in 1864.*

| Date. | Index. | Run in 5′ | Clock Rate. | Inclination. | Collimation. | Meridian. | Determining Stars |
|---|---|---|---|---|---|---|---|
| 1864. | ″ | ″ | s | s | s | s | |
| Apl. 29 | 0·0 | + 0·1 | – 0·20 | – 0·04 | 0·00 | – 0·21 | |
| 30 | + 0·4 | + 0·1 | – 0·14 | + 0·02 | + 0·04 | – 0·19 | η Urs Maj. and Polaris |
| May 2 | + 0·8 | + 0·1 | + 0·06 | – 0·01 | + 0·05 | – 0·19 | |
| 3 | + 0·9 | + 0·1 | + 0·08 | – 0·03 | 0·00 | – 0·19 | |
| 4 | + 0·4 | + 0·1 | + 0·06 | – 0·01 | + 0·02 | – 0·19 | |
| 5 | + 0·6 | + 0·1 | – 0·05 | + 0·02 | + 0·05 | – 0·19 | 101 R. P. L. and Polaris |
| 6 | 0·0 | + 0·1 | – 0·20 | + 0·03 | + 0·06 | – 0·20 | |
| 7 | + 0·5 | + 0·1 | – 0·24 | + 0·03 | + 0·03 | – 0·21 | η Urs Maj. and Polaris |
| 10 | + 0·5 | – 0·1 | – 0·08 | + 0·02 | – 0·01 | – 0·23 | |
| 12 | + 0·6 | – 0·1 | – 0·13 | + 0·01 | + 0·02 | – 0·24 | 89 and 12 R. P. L. |
| 13 | + 0·7 | – 0·1 | – 0·05 | + 0·01 | + 0·07 | – 0·23 | |
| 14 | + 0·2 | – 0·1 | 0·00 | – 0·02 | – 0·02 | – 0·23 | |
| 16 | + 0·8 | – 0·1 | – 0·57 | 0·00 | – 0·01 | – 0·22 | |
| 17 | + 1·0 | – 0·1 | – 0·51 | + 0·04 | + 0·02 | – 0·21 | 99 and 158 R. P. L. |
| 18 | + 0·3 | – 0·1 | – 0·16 | 0·00 | + 0·01 | – 0·24 | |
| 19 | + 0·6 | – 0·1 | – 0·09 | – 0·01 | 0·00 | – 0·27 | |
| 20 | + 1·2 | – 0·1 | – 0·08 | – 0·02 | – 0·01 | – 0·31 | |
| 21 | – 0·5 | – 0·1 | – 0·10 | + 0·02 | + 0·02 | – 0·34 | 111 and 14 R. P. L. |
| 23 | + 1·3 | 0·0 | – 0·38 | – 0·03 | – 0·01 | – 0·28 | η Urs Maj. and Polaris |
| 24 | + 1·7 | 0·0 | – 0·73 | – 0·01 | 0·00 | – 0·26 | |
| 25 | + 1·3 | 0·0 | – 0·73 | + 0·01 | – 0·02 | – 0·24 | |
| 26 | + 1·6 | 0·0 | – 0·46 | 0·00 | 0·00 | – 0·21 | |
| 28 | + 1·2 | 0·0 | – 0·27 | – 0·03 | – 0·01 | – 0·17 | β Urs Min. and Polaris. |
| 30 | + 0·8 | 0·0 | – 0·02 | 0·00 | + 0·03 | – 0·20 | |
| 31 | + 0·9 | 0·0 | – 0·01 | – 0·02 | – 0·02 | – 0·21 | |
| June 2 | + 1·3 | 0·0 | – 0·19 | – 0·04 | 0·00 | – 0·23 | |
| 3 | + 2·0 | 0·0 | – 0·20 | 0·00 | – 0·02 | – 0·25 | |
| 4 | + 1·7 | 0·0 | – 0·19 | 0·00 | – 0·02 | – 0·[illegible] | δ Urs Min. and 33 R. P. L. |
| 7 | + 1·4 | 0·0 | – 0·05 | + 0·02 | 0·00 | – 0·23 | |

*Instrumental Corrections adopted in 1864.*

| Date. | Index. | Run in 5′ | Clock Rate. | Inclination. | Collimation. | Meridian. | Determining Stars. |
|---|---|---|---|---|---|---|---|
| 1864. | ″ | ″ | s | s | s | s | |
| June 8 | + 1·6 | 0·0 | − 0·03 | + 0·01 | 0·00 | − 0·22 | |
| 10 | + 1·3 | − 0·1 | − 0·09 | − 0·01 | − 0·04 | − 0·20 | |
| 14 | + 1·0 | − 0·1 | − 0·19 | + 0·04 | − 0·01 | − 0·16 | η Bootis and Polaris. |
| 15 | + 0·5 | + 0·1 | − 0·18 | 0·00 | − 0·01 | − 0·20 | |
| 16 | + 1·1 | + 0·1 | − 0·10 | + 0·01 | − 0·02 | − 0·23 | ε Urs. Min. and 40 R. P. L. |
| 17 | + 1·0 | + 0·1 | − 0·08 | + 0·02 | − 0·01 | − 0·23 | |
| 18 | + 0·9 | + 0·1 | − 0·15 | + 0·07 | + 0·02 | − 0·23 | |
| 21 | + 0·9 | + 0·1 | − 0·25 | + 0·05 | − 0·02 | − 0·22 | |
| 24 | + 0·4 | − 0·2 | − 0·22 | + 0·06 | − 0·01 | − 0·21 | |
| 27 | 0·0 | − 0·2 | + 0·03 | + 0·07 | − 0·01 | − 0·20 | |
| 28 | − 0·4 | − 0·2 | − 0·06 | + 0·06 | − 0·05 | − 0·19 | |
| 29 | + 0·7 | − 0·2 | − 0·19 | + 0·06 | − 0·03 | − 0·19 | 111 R. P. L. and Antares. |
| 30 | + 0·2 | − 0·2 | − 0·08 | + 0·07 | − 0·04 | − 0·19 | |
| July 1 | + 0·3 | − 0·2 | − 0·02 | + 0·04 | − 0·07 | − 0·20 | |
| 2 | + 0·5 | − 0·2 | − 0·05 | + 0·04 | − 0·06 | − 0·20 | |
| 4 | + 0·7 | − 0·2 | − 0·10 | + 0·04 | − 0·04 | − 0·21 | |
| 7 | − 0·1 | + 0·1 | 0·00 | + 0·07 | + 0·02 | − 0·23 | |
| 8 | + 0·6 | − 0·2 | + 0·04 | + 0·07 | − 0·02 | − 0·23 | |
| 9 | − 0·2 | − 0·2 | 0·00 | + 0·03 | − 0·04 | − 0·24 | |
| 11 | + 0·2 | − 0·2 | − 0·12 | + 0·04 | − 0·02 | − 0·25 | |
| 18 | − 0·6 | 0·0 | − 0·11 | − 0·02 | − 0·01 | − 0·23 | ε Urs. Min. and 51 Cephei. |
| 21 | − 0·2 | 0·0 | + 0·02 | + 0·04 | 0·00 | − 0·27 | |
| 22 | − 0·6 | 0·0 | + 0·03 | + 0·07 | + 0·01 | − 0·26 | |
| 23 | − 0·5 | 0·0 | + 0·02 | + 0·10 | + 0·03 | − 0·26 | |
| 25 | − 0·3 | 0·0 | + 0·01 | + 0·08 | + 0·04 | − 0·25 | |
| 26 | − 1·6 | 0·0 | + 0·01 | + 0·15 | + 0·05 | − 0·25 | |
| Aug. 5 | + 0·9 | − 0·2 | − 0·13 | − 0·02 | − 0·03 | − 0·21 | δ Urs. Min. and θ Ophiuchi. |
| 8 | + 0·6 | − 0·2 | + 0·03 | + 0·01 | − 0·01 | − 0·24 | δ Urs. Min. and μ¹ Sagittarii. |
| 9 | + 0·5 | − 0·2 | + 0·04 | + 0·01 | − 0·01 | − 0·24 | |
| 11 | + 0·5 | − 0·2 | + 0·08 | 0·00 | − 0·03 | − 0·24 | ε Urs. Min. and 43 R. P. L. |

*Instrumental Corrections adopted in 1864.*

| Date. | Index. | Run in 5′ | Clock Rate. | Inclination. | Collimation. | Meridian. | Determining Stars |
|---|---|---|---|---|---|---|---|
| 1864. | ″ | ″ | s | s | s | s | |
| Aug. 12 | +0·8 | −0·2 | +0·08 | −0·02 | +0·01 | −0·23 | |
| 13 | +0·2 | −0·2 | +0·06 | −0·01 | +0·02 | −0·22 | |
| 15 | +0·1 | −0·2 | −0·07 | −0·01 | −0·01 | −0·21 | |
| 16 | +0·6 | +0·2 | 0·00 | +0·01 | −0·02 | −0·20 | δ Urs. Min. and 51 Cephei |
| 17 | −0·3 | −0·2 | +0·10 | +0·02 | +0·03 | −0·21 | |
| 18 | +0·2 | +0·2 | +0·07 | −0·06 | −0·02 | −0·23 | |
| 19 | +0·9 | +0·2 | 0·00 | −0·02 | −0·02 | −0·24 | |
| 20 | +0·5 | +0·2 | −0·01 | −0·02 | −0·01 | −0·25 | |
| 22 | +0·5 | +0·2 | +0·13 | −0·06 | −0·06 | −0·28 | |
| 23 | +0·5 | +0·2 | 0·00 | −0·08 | −0·07 | −0·29 | λ Urs. Min. and 51 Cephei. |
| 24 | +0·7 | +0·2 | −0·07 | −0·04 | −0·01 | −0·27 | |
| 26 | +0·5 | +0·2 | 0·00 | −0·04 | −0·01 | −0·24 | |
| 29 | +0·4 | +0·2 | −0·12 | −0·12 | −0·04 | −0·20 | |
| 31 | +1·5 | +0·2 | −0·07 | −0·16 | −0·04 | −0·17 | |
| Sep. 2 | +2·7 | −0·3 | 0·00 | −0·11 | −0·01 | −0·14 | 24 Urs. Min. and δ Aquilæ |
| 5 | +3·3 | −0.3 | 0·00 | −0·12 | 0·00 | −0·13 | 150 R. P. L. and ρ Capricorni. |
| 9 | +2·6 | −0·3 | +0·02 | −0·13 | 0·00 | −0·20 | |
| 10 | +2·9 | −0.3 | +0·03 | −0·13 | −0·01 | −0·22 | |
| 12 | +3·1 | −0.3 | −0·05 | −0·14 | 0·00 | −0·26 | |
| 13 | +2·4 | −0.3 | −0·08 | −0·16 | −0·01 | −0·28 | 143 and 49 R. P. L. |
| 14 | +2·6 | −0.3 | −0·06 | −0·17 | −0·01 | −0·27 | |
| 15 | +1·8 | −0.3 | −0·10 | −0·15 | +0·02 | −0·27 | |
| 16 | +2·5 | −0·1 | −0·12 | −0·15 | +0·02 | −0·26 | |
| 19 | +2·7 | −0·1 | −0·05 | −0·10 | +0·02 | −0·24 | |
| 20 | +2·6 | −0·1 | −0·04 | −0·10 | +0·03 | −0·24 | |
| 23 | +2·6 | −0·1 | −0·06 | −0·13 | +0·03 | −0·22 | |
| 24 | +2·3 | −0·1 | −0·07 | −0·13 | +0·02 | −0·21 | |
| 26 | +2·3 | −0·1 | −0·08 | −0·15 | +0·01 | −0·20 | 150 and 60 R. P. L. |
| 27 | +2·2 | −0·1 | −0·07 | −0·14 | +0·01 | −0·24 | |
| 28 | +1·6 | −0·1 | −0·04 | −0·19 | −0·02 | −0·28 | |
| 29 | +1·8 | −0·1 | −0·04 | −0·16 | −0·01 | −0·31 | λ Urs. Min. and 60 R. P. L. |

## *Instrumental Corrections adopted in 1864.*

| Date. | | Index. | Run in 5′ | Clock Rate. | Inclination. | Collimation. | Meridian. | Determining Stars |
|---|---|---|---|---|---|---|---|---|
| 1864. | | ″ | ″ | s | s | s | s | |
| Oct. | 1 | + 1·3 | − 0·3 | − 0·15 | − 0·11 | + 0·01 | − 0·25 | |
| | 3 | + 2·1 | − 0·3 | − 0·32 | − 0·16 | − 0·04 | − 0·19 | 158 and 72 R. P. L. |
| | 4 | + 2·1 | − 0·3 | − 0·27 | − 0·15 | + 0·01 | − 0·19 | |
| | 5 | + 1·5 | − 0·3 | − 0·20 | − 0·19 | − 0·04 | − 0·18 | |
| | 6 | + 0·5 | − 0·3 | − 0·24 | − 0·14 | + 0·01 | − 0·18 | |
| | 7 | + 0·7 | − 0·3 | − 0·18 | − 0·17 | − 0·04 | − 0·17 | |
| | 8 | + 0·8 | − 0·3 | − 0·60 | − 0·14 | − 0·01 | − 0·17 | 150 R. P. L. and δ Sculptoris. |
| | 10 | ...... | ...... | − 0·18 | − 0·15 | − 0·01 | − 0·17 | |
| | 11 | + 0·8 | − 0·3 | − 0·26 | − 0·16 | − 0·02 | − 0·17 | |
| | 13 | + 1·3 | − 0·3 | − 0·24 | − 0·20 | − 0·02 | − 0·17 | Polaris and θ Aquarii. |
| | 14 | + 1·0 | − 0·3 | − 0·16 | − 0·21 | − 0·01 | − 0·18 | |
| | 15 | + 1·3 | − 0·3 | − 0·14 | − 0·26 | − 0·06 | − 0·18 | |
| | 17 | + 2·1 | + 0·2 | − 0·31 | − 0·22 | + 0·02 | − 0·19 | |
| | 20 | + 5·4 | + 0·2 | − 0·36 | − 0·45 | − 0·02 | − 0·21 | |
| | 21 | + 6·1 | + 0·2 | − 0·23 | − 0·44 | − 0·06 | − 0·22 | 3 Pegasi and 79 R. P. L. |
| | 22 | + 6·2 | + 0·2 | − 0·16 | − 0·44 | − 0·05 | − 0·20 | |
| | 24 | + 7·3 | + 0·2 | − 0·07 | − 0·36 | − 0·01 | − 0·15 | |
| | 25 | + 6·3 | + 0·2 | − 0·16 | − 0·39 | 0·00 | − 0·13 | |
| | 26 | + 6·6 | + 0·2 | − 0·24 | − 0·35 | + 0·02 | − 0·10 | |
| | 27 | + 6·0 | + 0·2 | − 0·21 | − 0·35 | + 0·01 | − 0·08 | Polaris and 101 R. P. L. |
| | 28 | + 5·0 | + 0·2 | − 0·21 | − 0·31 | + 0·02 | − 0·08 | |
| | 31 | + 4·7 | + 0·2 | + 0·84 | − 0·34 | + 0·01 | − 0·09 | |
| Nov. | 1 | ... | ..... | + 1·06 | − 0·34 | − 0·02 | − 0·09 | |
| | 2 | + 5·1 | − 0·2 | + 1·23 | − 0·33 | − 0·05 | − 0·10 | 12 and 72 R. P. L. |
| | 3 | + 4·3 | − 0·2 | + 1·23 | − 0·32 | − 0·03 | − 0·09 | |
| | 4 | + 4·8 | − 0·2 | − 0·01 | − 0·30 | − 0·05 | − 0·09 | |
| | 5 | + 3·8 | − 0·2 | + 0·01 | − 0·32 | − 0·03 | − 0·08 | 158 and 89 R. P. L. |
| | 7 | + 2·8 | − 0·2 | − 0·03 | − 0·36 | − 0·03 | − 0·06 | |
| | 8 | + 3·7 | − 0·2 | − 0·03 | − 0·34 | − 0·02 | − 0·03 | |
| | 10 | + 4·0 | − 0·2 | − 0·03 | − 0·34 | 0·00 | 0·00 | |

The Transit clock was cleaned on October 29th, without removing or in any way interfering with the pendulum. Its rate was altered 1 second, after the observations on November 3.

*Instrumental Corrections adopted in 1864.*

| Date. | Index. | Run in 5′ | Clock Rate. | Inclina-tion. | Collima-tion. | Meridian. | Determining Stars. |
|---|---|---|---|---|---|---|---|
| 1864. | ″ | ″ | s | s | s | s | |
| Nov. 11 | + 3·4 | − 0·2 | − 0·07 | − 0·32 | − 0·01 | + 0·02 | |
| 12 | + 3·3 | − 0·2 | − 0·21 | − 0·34 | − 0·01 | + 0·04 | |
| 14 | + 3·1 | − 0·2 | − 0·57 | − 0·33 | − 0·01 | + 0·07 | |
| 16 | + 4·6 | + 0·1 | − 0·75 | − 0·32 | + 0·02 | + 0·10 | |
| 21 | + 6·3 | + 0·1 | − 0·89 | − 0·35 | + 0·02 | + 0·12 | 34 R. P. L. and $\gamma^1$ Eridani. |
| 22 | + 6·7 | + 0·1 | − 0·92 | − 0·30 | + 0·05 | + 0·03 | Polaris, 34 and 111 R. P. L. |
| 23 | + 6·6 | + 0·1 | − 0·98 | − 0·32 | + 0·04 | + 0·04 | |
| 24 | + 5·6 | + 0·1 | − 1·06 | − 0·32 | 0·00 | + 0·05 | |
| 25 | + 5·5 | + 0·1 | − 1·06 | − 0·37 | 0·00 | + 0·07 | |
| 29 | + 7·1 | + 0·1 | + 0·01 | − 0·28 | + 0·04 | + 0·12 | Polaris and Achernar. |
| 30 | + 7·8 | + 0·1 | + 0·08 | − 0·27 | + 0·04 | + 0·09 | |
| Dec. 1 | + 7·9 | − 0·3 | − 0·01 | − 0·29 | + 0·02 | + 0·06 | Polaris and $\nu$ Piscium. |
| 2 | + 7·6 | − 0·3 | − 0·09 | − 0·24 | + 0·07 | + 0·08 | |
| 3 | + 7·6 | − 0·3 | − 0·05 | − 0·32 | 0·00 | + 0.10 | |
| 5 | + 6·7 | − 0·3 | − 0·18 | − 0·30 | + 0·01 | + 0·15 | |
| 6 | + 7·4 | − 0·3 | − 0·18 | − 0·33 | + 0·01 | + 0·17 | 33 R. P. L. and $\beta$ Ceti. |
| 7 | + 7·6 | − 0·3 | − 0·17 | − 0·33 | − 0·01 | + 0·15 | |
| 8 | + 7·7 | − 0·3 | − 0·20 | − 0·32 | 0·00 | + 0·12 | |
| 9 | + 7·5 | − 0·3 | − 0·17 | − 0·29 | 0·00 | + 0·10 | |
| 10 | + 6·1 | − 0·3 | − 0·16 | − 0·32 | 0·00 | + 0·07 | Polaris and $\zeta^1$ Ceti |
| 12 | + 6·3 | − 0·3 | − 0·15 | − 0·30 | − 0·05 | + 0·06 | |
| 13 | + 6·2 | − 0·3 | − 0·22 | − 0·36 | − 0·04 | + 0·05 | |
| 14 | + 5·0 | − 0·3 | − 0·27 | − 0·35 | − 0·02 | + 0·05 | |
| 15 | + 5·3 | + 0·1 | − 0·26 | − 0·34 | − 0·01 | + 0·04 | 51 Cephei and $\delta$ Urs. Min. |
| 16 | + 5·3 | + 0·1 | − 0·24 | − 0·34 | 0·00 | + 0·08 | |
| 17 | + 5·7 | + 0·1 | − 0·18 | − 0·37 | 0·00 | + 0·08 | |
| 20 | + 5·0 | + 0·1 | − 0·16 | − 0·27 | + 0·04 | + 0·14 | Polaris, 34 and 114 R. P. L. |
| 21 | + 4·9 | + 0·1 | − 0·19 | − 0·35 | + 0·03 | + 0·13 | |
| 22 | + 4·9 | + 0·1 | − 0·19 | − 0·30 | + 0·04 | + 0·13 | |
| 23 | + 5·0 | + 0·1 | − 0·13 | − 0·32 | + 0·02 | + 0·12 | |

The Transit clock-rate was again altered 1 second on November 26th.

## SEPARATE RESULTS OF OBSERVATIONS.

These, though forming the bulk of the present volume, require but little further explanation than is afforded by the headings of each column.

In the second column, Flamsteed's numbers, Bayer's Greek letters, and familiar names by which the principal stars are known, have been used in preference to any other designations. For other objects, reference is made to "*Taylor's Madras Catalogue*"; to Baily's edition of "*Lalande*"; to the two Catalogues of "*Bessel's Zones*", compiled by Weisse; with W. B. E. for the first, containing stars within 15° of the equator, and W. B. N. for the second or northern one. Similarly, the northern and southern catalogues of "*Argelander's Zones*", compiled by Oeltzen, are indicated respectively by O. A. N. and O. A. S. Polar stars, used for meridian error, taken from the "*Catalogue of* 164 *Stars within* 6° *of the North Pole*", in Vol. XVI of the "*Radcliffe Observations*", are referred to by their number therein, followed by R. P. L. For the Variable Stars I have used my own nomenclature, agreed to by Prof. Argelander, Sir John Herschel and other astronomers, when my Atlas of these objects was first fairly taken in hand, nearly thirty years back; in which Prof. Argelander's letters, R, S, T, &c., are retained, but the name of the constellation is followed by Var. 1, Var. 2, &c., showing thereby the order of proved variability of each star in such constellation. As it is now so many years since this simple method of reference to the variable stars was first suggested by me, it may be as well to state that it makes no distinction between periodical and temporary stars; those which are subject to more or less regular changes and those which have only once risen to a maximum. Thus, in Cassiopea, we have Gemma's Nova of 1572, known as B Cassiopea Var. 1; α Cassiopea Var. 2; R Cassiopea Var. 3; &c. In Scorpio also, we have, R Scorpii Var. 1; S Scorpii Var. 2; the two small variables near the cluster 80 Messier, first figured on page 357 of Smyth's Celestial Cycle; T Scorpii Var. 3, Auver's Nova of 1860, which blazed out apparently in the centre of the cluster itself, and V Scorpii Var. 4, my own Nova of 1863, No. 601 of the Lists for 1863 on pages 99 and 152 of this volume.

The estimations of magnitude made by Ragoonatha Chary are fairly accordant with Argelander's scale and are generally within a quarter of a magnitude, but those of Moottoosawmy, who affected tenths, were much less certain.

## MEAN POSITIONS OF STARS OBSERVED IN EACH YEAR.

In the annual lists of Mean Positions of Stars, only complete observations are included, so as to render the mean date the same for both co-ordinates. The numbers and references for the stars observed are the same as in the Separate Results. When magnitudes were noted, the mean of the estimations is given, but when no figure stands in the column of Estimations it must be understood that the magnitude entered is taken, from Argelander's "*Uranometria Nova*", from the two Radcliffe Catalogues, or from some other trustworthy source.

The Right Ascensions and Polar Distances are the simple means of the separate results, the latter being still only provisional and subject to further small changes in regard to the corrections for flexure and assumed latitude.

The tables on the four following pages, showing the excess of the Madras Mean Positions above those given in the Nautical Almanac for each year, render it certain that the Polar Distances will require some further small correction before being formed into a final general catalogue.

The annual precessions were computed by means of the formulæ given in the Nautical Almanac, in which the co-efficients of Prof. Peters were adopted, and the secular variations are the differentials of the precessions multiplied by 100, the variations of $m$ and $n$ being duly taken into account.

The proper motions, when not otherwise mentioned, are from the well-known lists published by Mr. Main, in the 19th and 28th, and by Mr. Stone, in the 33rd volumes of the "*Memoirs of the Royal Astronomical Society.*" When from any other source the authority is given in the foot notes: "*Greenwich Catalogue*" refers to the most recent of the five Greenwich Catalogues in which the star was found; and "*Stone's Catalogue*" to the great "*Cape Catalogue of* 12,441 *Stars.*"

## OTHER OBSERVATIONS WITH THE MERIDIAN CIRCLE.

The observations given in this volume relate only to the fixed stars. During the three years however, 163 observations of the Moon, 66 of Mars and 195 of 37 Minor Planets were made with the Meridian Circle, all of which await publication in a volume of Planetary and Cometary discoveries and observations, made chiefly with the equatoreals but supplemented by the Meridian Circle when any planet was not much below the 10th magnitude and was therefore observable in the illuminated field of that instrument.

*Comparison of Madras Mean Positions with the Nautical Almanac.*

| Star. | Approximate Position 1863. | | 1862. | | | 1863. | | | 1864. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Obs. | R. A. | P. D. | Obs. | R. A. | P. D. | Obs. | R. A. | P. D. |
| | h. m | ° ′ | | | | | s | ″ | | | |
| α Andromedæ . ... | 0 1 | 61 40 | 4 | + 0·03 | + 0·9 | 4 | + 0·01 | + 1·8 | 9 | − 0·04 | + 2·2 |
| γ Pegasi (*Algenib*) ... | 0 6 | 75 35 | 2 | + 0·02 | + 0·2 | 6 | − 0·01 | + 1·7 | 9 | + 0·02 | + 1·7 |
| 12 Ceti .. ... ... | 0 23 | 94 43 | 5 | − 0·03 | + 0·7 | 6 | − 0·04 | + 1·1 | 9 | − 0·05 | + 1·6 |
| α Cassiopeæ .. ... | 0 33 | 34 13 | ... | ........ | ......... | 2 | − 0·13 | + 1·7 | 1 | − 0·39 | + 2·2 |
| β Ceti .. ... ... ... | 0 37 | 108 44 | 5 | + 0·02 | − 0·9 | 2 | + 0·12 | − 0·7 | 11 | + 0·07 | − 0·4 |
| ε Piscium .. ... ... | 0 56 | 82 51 | 4 | − 0·03 | − 0·2 | 11 | − 0·06 | + 0·7 | 8 | − 0·04 | + 1·0 |
| α Urs. Min. (*Polaris*) | 1 9 | 1 25 | ... | ......... | ......... | 9 | + 0·12 | + 0·3 | 8 | − 0·45 | + 0·6 |
| θ¹ Ceti ... .. ... | 1 17 | 98 53 | 4 | − 0·01 | − 0·3 | 12 | + 0·03 | + 0·4 | 6 | + 0·02 | + 1·1 |
| η Piscium ... .. ... | 1 24 | 75 22 | 7 | + 0·04 | + 0·2 | 10 | + 0·01 | + 1·7 | 10 | + 0·04 | + 1·9 |
| α Eridani (*Achernar*) | 1 33 | 147 56 | ... | ...... | ......... | 2 | + 0·33 | + 2·2 | 3 | + 0·30 | + 3·5 |
| ν Piscium ... ... ... | 1 34 | 85 12 | 22 | + 0·03 | + 0·5 | 5 | + 0·03 | + 0·5 | 6 | − 0·03 | + 1·1 |
| β Arietis ... .. ... | 1 47 | 69 52 | 15 | 0·00 | + 1·2 | 13 | + 0·01 | + 1·5 | 7 | + 0·01 | + 2·2 |
| α Arietis ... ... ... | 1 59 | 67 11 | 11 | + 0·04 | + 0·6 | 10 | − 0·05 | + 1·5 | 7 | − 0·05 | + 1·7 |
| 67 Ceti ... ... ... | 2 10 | 97 3 | 6 | − 0·02 | + 0·4 | 6 | + 0.03 | + 1·2 | 7 | + 0·05 | + 0·7 |
| ξ² Ceti .. . .. | 2 21 | 97 51 | 6 | + 0·03 | − 0·1 | 8 | − 0·02 | − 0·6 | 9 | − 0·02 | − 0·1 |
| γ Ceti... ... ... . | 2 36 | 87 21 | 4 | 0·00 | − 0·8 | 6 | + 0·01 | + 0·9 | 8 | + 0·05 | + 0·2 |
| α Ceti .. ... ... ... | 2 55 | 86 27 | 2 | − 0·02 | − 0·9 | 8 | + 0·02 | − 0·1 | 7 | + 0·04 | + 0·4 |
| δ Arietis ... ... ... | 3 4 | 70 48 | 2 | + 0·05 | + 1·8 | 5 | − 0·01 | + 1·8 | 9 | − 0·05 | + 2·1 |
| α Persei ... ... . | 3 15 | 40 38 | 1 | 0·00 | + 1·1 | ..... | ......... | ......... | 3 | − 0·13 | + 0·3 |
| η Tauri . . ... .. | 3 39 | 66 19 | 3 | − 0·03 | + 1·0 | 10 | − 0·02 | + 1·2 | 11 | 0·00 | + 1·7 |
| γ¹ Eridani . ... ... | 3 52 | 103 54 | 2 | + 0·04 | − 1·3 | 8 | + 0·02 | 0·0 | 8 | + 0·09 | + 0·6 |
| o¹ Eridani ... ... ... | 4 5 | 97 12 | ... | ...... ... | ......... | 2 | − 0·03 | + 1·7 | 3 | − 0·02 | + 1·2 |
| ε Tauri ... ... .. | 4 21 | 71 8 | 4 | + 0·06 | + 1·0 | 11 | 0·00 | + 0·9 | 13 | + 0·02 | + 1·9 |
| α Tauri (*Aldebaran*)... | 4 28 | 73 46 | 1 | − 0·01 | + 1·5 | 11 | 0·00 | + 1·5 | 9 | − 0·01 | + 1·9 |
| ι Aurigæ .. ... ... | 4 48 | 57 3 | 2 | + 0·01 | + 2·0 | 3 | − 0·10 | + 0·6 | 8 | 0·00 | + 1·5 |
| ε Leporis ... .. .. | 5 0 | 112 33 | ... | ......... | ......... | 6 | + 0·07 | − 0·4 | 5 | + 0·02 | + 0·1 |
| α Aurigæ (*Capella*) .. | 5 7 | 44 9 | ... | .. ...... | ......... | 1 | − 0·03 | − 0·7 | 2 | − 0·07 | − 0·2 |
| β Orionis (*Rigel*) .. | 5 8 | 98 22 | ... | ......... | ......... | 4 | − 0·03 | + 0·7 | 7 | 0·00 | + 0·4 |
| β Tauri ... ... .. | 5 18 | 61 31 | 2 | + 0·01 | + 1·6 | 7 | − 0·03 | + 0·3 | 3 | + 0·03 | + 1·3 |
| δ Orionis . . .. . | 5 25 | 90 24 | ... | ......... | . ...... | 7 | − 0·02 | + 0·4 | 3 | + 0·01 | − 0·8 |
| α Leporis ... ... . | 5 26 | 107 55 | ... | ......... | ......... | 5 | + 0·03 | − 0·3 | 2 | + 0·04 | + 0·5 |
| ε Orionis .. .. | 5 29 | 91 18 | .. | .. ...... | ......... | 3 | + 0·03 | + 0·3 | 5 | + 0·08 | + 0·6 |
| α Columbæ ... .. | 5 35 | 124 9 | ... | ......... | ......... | 5 | − 0·11 | + 1·3 | 6 | − 0·14 | + 2·0 |
| α Orionis .. ... ... | 5 48 | 82 37 | ... | ... .. | ......... | 12 | 0·00 | − 0·2 | 4 | + 0·06 | 0·0 |
| ν Orionis ... ... ... | 6 0 | 75 13 | .. | ......... | ...... | 12 | − 0·02 | + 0·6 | 6 | + 0·04 | + 1·1 |

*Comparison of Madras Mean Positions with the Nautical Almanac.*

| Star. | Approximate Position 1863 | | 1862. | | | 1863 | | | 1864. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Obs. | R. A. | P. D. | Obs. | R. A. | P. D. | Obs. | R. A. | P. D. |
| | h. m. | ° ′ | | | | | s. | ″ | | | |
| μ Geminorum ... ... | 6 15 | 67 25 | 1 | – 0·08 | – 0·1 | 7 | + 0·06 | + 0·5 | 8 | + 0·03 | + 1·9 |
| α Argûs (*Canopus*) ... | 6 21 | 142 37 | .. | ...... | ...... | ... | ...... | ...... | 3 | – 0·11 | – 0·8 |
| γ Geminorum ... ... | 6 29 | 73 29 | 2 | – 0·01 | + 1·4 | 12 | – 0·03 | + 0·9 | 9 | – 0·05 | + 1·7 |
| 51 (Hev.) Cephei ... | 6 35 | 2 45 | ... | ...... | ...... | 8 | + 0·03 | + 0·6 | 15 | + 0·27 | + 0·5 |
| α Can. Maj. (*Sirius*) ... | 6 39 | 106 32 | ... | ...... | ...... | 1 | – 0·21 | – 0·3 | 3 | – 0·20 | – 0·1 |
| ε Canis Majoris ... | 6 53 | 118 47 | ... | ...... | ...... | 6 | + 0·01 | – 1·1 | 7 | + 0·01 | – 0·9 |
| γ Canis Majoris ... | 6 58 | 105 26 | ... | ...... | ...... | 7 | – 0·02 | + 0·5 | 4 | – 0·05 | + 0·5 |
| δ Geminorum ... ... | 7 12 | 67 46 | ... | ...... | ...... | 17 | – 0·03 | + 0·9 | 10 | + 0·01 | + 1·7 |
| α² Gem. (*Castor*) ... | 7 26 | 57 49 | ... | ...... | ...... | 12 | 0·00 | + 0·8 | 3 | – 0·03 | + 1·4 |
| α Can. Min. (*Procyon*) | 7 32 | 84 26 | ... | ...... | ...... | 15 | + 0·04 | + 1·9 | 7 | + 0·04 | + 2·1 |
| β Gem. (*Pollux*) ... | 7 37 | 61 39 | ... | ...... | ...... | 10 | + 0·04 | + 0·9 | 6 | + 0·05 | + 1·6 |
| 6 Cancri ... ... .. | 7 55 | 61 49 | ... | ...... | ...... | 9 | – 0·04 | + 1·5 | 4 | – 0·03 | + 2·1 |
| 15 Argûs ... .. ... | 8 2 | 113 55 | ... | ...... | ...... | 6 | + 0·07 | + 0·3 | 9 | 0·00 | + 0·2 |
| η Cancri .. ... ... | 8 25 | 69 6 | ... | ...... | ...... | 8 | + 0·05 | + 0·2 | 9 | + 0·04 | + 1·4 |
| ε Hydræ ... ... ... | 8 40 | 83 5 | ... | ...... | ...... | 12 | – 0·06 | + 1·4 | 6 | – 0·04 | + 0·6 |
| ι Ursæ Majoris ... | 8 50 | 41 25 | ... | ...... | ...... | ... | ...... | ...... | 4 | + 0·06 | + 0·2 |
| 83 Cancri ... ... | 9 11 | 71 43 | ... | ...... | ...... | 13 | + 0·14 | + 0·6 | 4 | + 0·02 | + 0·8 |
| ι Argûs ... ... | 9 13 | 148 42 | .. | ...... | ...... | ... | ...... | ...... | 3 | + 0·12 | + 4·8 |
| α Hydræ ... ... | 9 21 | 98 4 | ... | ...... | ...... | 13 | 0·00 | + 0·3 | 6 | + 0·01 | + 0·3 |
| θ Ursæ Majoris ... | 9 24 | 37 42 | ... | ...... | ...... | ... | ...... | ...... | 2 | + 0·06 | + 0·6 |
| ε Leonis ... .. | 9 38 | 65 36 | .. | ...... | ...... | 12 | + 0·01 | + 0·7 | 8 | – 0·02 | + 1·4 |
| π Leonis ... .. | 9 53 | 81 18 | ... | ...... | ...... | 13 | + 0·01 | + 0·1 | 10 | 0·00 | + 0·1 |
| α Leonis (*Regulus*) .. | 10 1 | 77 22 | .. | ...... | ...... | 20 | – 0·02 | + 0·4 | 14 | – 0·01 | + 0·3 |
| γ¹ Leonis .. ... | 10 12 | 69 28 | ... | ...... | ...... | 20 | + 0·05 | + 0·7 | 12 | – 0·04 | + 1·1 |
| ρ Leonis . ... | 10 26 | 79 59 | .. | ...... | ...... | 12 | – 0·06 | + 0·3 | 10 | – 0·03 | + 0·5 |
| η Argûs ... ... | 10 40 | 148 58 | ... | ...... | ...... | .. | ...... | ...... | 3 | – 0·03 | + 3·1 |
| l Leonis ... ... | 10 42 | 78 41 | ... | ...... | ...... | 11 | + 0·02 | + 0·3 | 11 | + 0·02 | + 0·8 |
| α Ursæ Majoris ... | 10 55 | 27 31 | ... | ...... | ...... | .. | ...... | ...... | 3 | – 0·[illegible]1 | + 0·4 |
| χ Leonis ... .. | 10 58 | 81 55 | ... | ...... | ...... | 8 | – 0·01 | – 0·7 | 11 | + 0·03 | – 0·1 |
| δ Leonis ... ... | 11 7 | 68 44 | ... | ...... | ...... | 11 | – 0·06 | + 0·2 | 10 | – 0·02 | + 0·7 |
| δ Crateris .. ... | 11 12 | 104 2 | ... | ...... | ...... | 13 | + 0·05 | – 1·0 | 8 | + 0·01 | + 0·8 |
| υ Leonis ... | 11 30 | 90 4 | .. | ...... | ...... | 13 | – 0·01 | + 1·0 | 13 | – 0·01 | + 1·3 |
| β Leonis . ... | 11 42 | 74 40 | ... | ...... | ...... | 6 | + 0·04 | + 1·0 | 11 | + 0·02 | + 0·9 |
| γ Ursæ Majoris ... | 11 47 | 35 23 | . | ...... | ...... | ... | ...... | ...... | 1 | – 0·1[illegible] | 0·1 |
| ε Corvi . ... | 12 3 | 111 51 | 3 | – 0·08 | + 1·0 | 5 | – 0·02 | + 0·7 | 8 | + 0·03 | + 0·1 |

*Comparison of Madras Mean Positions with the Nautical Almanac.*

| Star. | Approximate Position 1863. | | 1862 | | | 1863. | | | 1864. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Obs | R. A | P. D | Obs. | R. A. | P. D | Obs. | R. A. | P. D |
| | h. m. | ° ′ | | | | | s. | ″ | | | |
| η Virginis ... .. | 12 13 | 89 54 | ... | ......... | ......... | 4 | + 0·08 | + 1·3 | 6 | + 0·05 | + 0·9 |
| α Crucis ... .. | 12 19 | 152 20 | ... | ......... | ......... | ... | ......... | ......... | 2 | + 0·20 | + 3·8 |
| β Corvi ... .. | 12 27 | 112 38 | 3 | + 0·10 | + 0·5 | 5 | + 0·10 | − 0·2 | 4 | + 0·14 | − 1·0 |
| γ Virginis ... .. | 12 35 | 90 42 | ... | ......... | ......... | 1 | − 0·06 | − 3·7 | ... | ......... | ......... |
| 12 Canum Venat. .. | 12 50 | 50 56 | ... | ......... | ......... | 5 | − 0·01 | + 1·2 | 11 | + 0·03 | + 0·9 |
| θ Virginis ... ... | 13 3 | 94 48 | ... | ......... | ......... | 5 | − 0·02 | + 0·8 | 11 | − 0·02 | + 0·6 |
| α Virginis *(Spica)* ... | 13 18 | 100 27 | 2 | + 0·09 | + 1·8 | 9 | − 0·01 | − 0·4 | 14 | + 0·01 | 0·0 |
| ζ Virginis ... ... | 13 28 | 89 54 | 2 | − 0·01 | + 2·5 | 12 | − 0·05 | + 1·2 | 15 | + 0·05 | + 1·5 |
| η Ursæ Majoris ... | 13 42 | 40 0 | 1 | + 0·08 | + 1·5 | ... | ......... | ......... | 3 | − 0·07 | + 0·3 |
| η Bootis ... .. | 13 48 | 70 55 | 2 | − 0·06 | − 0·2 | 9 | − 0·04 | + 0·5 | 13 | − 0·01 | + 0·9 |
| τ Virginis ... .. | 13 55 | 87 47 | 1 | + 0·04 | + 0·1 | 5 | 0·00 | − 0·7 | 13 | + 0·02 | − 0·3 |
| α Bootis *(Arcturus)* . | 14 9 | 70 6 | 4 | + 0·01 | + 0·6 | 5 | + 0·02 | + 1·3 | 6 | + 0·05 | + 0·9 |
| ρ Bootis . .. | 14 26 | 59 2 | 5 | − 0·07 | + 1·6 | 6 | − 0·07 | + 1·4 | 8 | − 0·07 | + 1·1 |
| α Centauri (2nd) ... | 14 30 | 150 16 | ... | ......... | ......... | ... | ......... | ......... | 2 | − 1·05 | + 15·1 |
| ε Bootis ... ... | 14 39 | 62 31 | 3 | + 0·05 | + 0·8 | 5 | − 0·04 | + 0·3 | 11 | + 0·05 | + 0·4 |
| α² Libræ ... ... | 14 43 | 105 28 | 2 | − 0·13 | + 0·1 | 4 | − 0·05 | − 0·2 | 12 | + 0·02 | − 0·2 |
| β Ursæ Minoris .. | 14 51 | 15 17 | 2 | − 0·23 | + 0·3 | ... | ......... | ......... | 1 | − 0·26 | − 1·1 |
| ψ Bootis ... ... | 14 59 | 62 31 | 3 | + 0·01 | + 2·2 | 5 | − 0·06 | + 0·7 | 8 | − 0·07 | + 1·6 |
| β Libræ ... ... | 15 10 | 98 53 | 3 | − 0·13 | + 0·5 | 6 | + 0·07 | 0·0 | 7 | − 0·01 | − 0·1 |
| α Coronæ Borealis ... | 15 29 | 62 49 | 6 | + 0·09 | + 0·7 | 3 | 0·00 | + 0·3 | 5 | + 0·05 | + 1·3 |
| α Serpentis .. .. | 15 38 | 83 8 | 2 | − 0·02 | + 0·6 | 6 | + 0·04 | − 0·3 | 7 | + 0·02 | + 0·1 |
| ζ Ursæ Minoris ... | 15 49 | 11 47 | 1 | + 0·21 | + 0·3 | ... | ......... | ......... | 2 | + 0·20 | + 0·4 |
| β¹ Scorpii ... ... | 15 57 | 109 26 | 13 | + 0·01 | + 0·7 | 6 | + 0·06 | − 0·1 | 7 | 0·00 | − 0·3 |
| δ Ophiuchi . ... | 16 7 | 93 20 | 1 | 0·00 | + 2·7 | 1 | + 0·27 | + 1·0 | 5 | + 0·05 | + 1·0 |
| α Scorpii *(Antares)* .. | 16 21 | 116 7 | 8 | 0·00 | + 0·3 | 7 | + 0·03 | − 0·9 | 10 | − 0·02 | − 0·3 |
| ζ Herculis ... ... | 16 36 | 58 9 | 9 | 0·00 | + 1·9 | 5 | − 0·02 | + 1·8 | 7 | + 0·01 | + 1·9 |
| κ Ophiuchi ... ... | 16 51 | 80 25 | 9 | − 0·03 | − 0·1 | 8 | + 0·10 | + 0·4 | 7 | − 0·11 | + 0·5 |
| ε Ursæ Minoris ... | 17 0 | 7 45 | 2 | + 0·04 | + 1·9 | ... | ......... | ......... | 6 | − 0·25 | + 1·6 |
| α Herculis Var. 1 ... | 17 8 | 75 27 | 5 | + 0·03 | 0·0 | 9 | + 0·06 | + 1·2 | 8 | + 0·02 | + 1·0 |
| θ Ophiuchi .. .. | 17 14 | 114 52 | 4 | − 0·08 | + 1·7 | 9 | + 0·03 | + 1·3 | 5 | + 0·03 | + 1·0 |
| α Ophiuchi ... ... | 17 29 | 77 20 | 8 | + 0·03 | + 0·8 | 5 | + 0·02 | + 1·4 | 5 | − 0·02 | + 0·5 |
| μ Herculis... ... .. | 17 41 | 62 12 | 3 | − 0·02 | + 0·5 | ... | ......... | ......... | 2 | + 0·03 | + 0·6 |
| γ Draconis ... ... | 17 53 | 38 30 | 1 | + 0·21 | + 1·2 | ... | ......... | ......... | 1 | − 0·01 | + 0·8 |
| μ¹ Sagittarii .. . | 18 6 | 111 5 | 1 | + 0·04 | − 1·5 | 9 | + 0·03 | 0·0 | 4 | + 0·09 | − 0·1 |
| δ Ursæ Minoris .. | 18 17 | 3 24 | ... | ......... | ......... | 9 | + 0·10 | − 0·9 | 5 | + 0·41 | − 0·5 |

*Comparison of Madras Mean Positions with the Nautical Almanac.*

| Star. | Approximate Position 1863. | | 1862. | | | 1863. | | | 1864. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Obs. | R. A. | P. D. | Obs. | R. A. | P. D. | Obs. | R. A. | P. D. |
| | h. m. | ° ′ | | | | | s | ″ | | | |
| α Lyræ (*Vega*) ... ... | 18 32 | 51 21 | 2 | − 0·18 | 0·0 | 6 | 0·00 | + 1·1 | 4 | 0·00 | + 1·8 |
| β Lyræ Var. 1 ... ... | 18 45 | 56 48 | 5 | + 0·07 | + 0·2 | 4 | + 0·02 | + 0·4 | 3 | − 0·03 | + 0·2 |
| ζ Aquilæ ... ... ... | 18 59 | 76 20 | 5 | + 0·10 | + 0·7 | 7 | + 0·04 | + 1·1 | 7 | + 0·05 | + 1·8 |
| ω Aquilæ ... ... ... | 19 11 | 78 39 | 2 | − 0·13 | + 0·1 | 5 | + 0·01 | + 0·3 | 4 | − 0·03 | 0·0 |
| δ Aquilæ ... ... .. | 19 19 | 87 9 | 3 | 0·00 | − 0·2 | 4 | − 0·02 | + 0·4 | 7 | − 0·01 | + 1·3 |
| h² Sagittarii ... ... | 19 28 | 115 11 | 3 | + 0·07 | + 1·2 | 2 | + 0·05 | + 1·9 | 5 | + 0·11 | + 1·5 |
| γ Aquilæ ... ... ... | 19 40 | 79 43 | 2 | − 0·09 | + 1·1 | 5 | − 0·05 | + 0·2 | 3 | − 0·06 | + 0·8 |
| α Aquilæ (*Altair*) ... | 19 44 | 81 29 | 2 | + 0·02 | − 0·3 | 2 | + 0·01 | + 0·8 | 2 | + 0·01 | 0·0 |
| β Aquilæ ... ... ... | 19 49 | 83 56 | 2 | + 0·04 | − 0·2 | 5 | − 0·04 | + 0·7 | 4 | − 0·03 | + 1·0 |
| λ Ursæ Minoris ... | 20 1 | 1 6 | ... | ......... | ......... | 3 | − 0·72 | − 0·4 | 4 | − 0·38 | 0·0 |
| α² Capricorni ... ... | 20 10 | 102 58 | 3 | + 0·03 | + 0·1 | 7 | + 0·01 | + 0·2 | 7 | − 0·03 | + 0·1 |
| α Pavonis ... ... ... | 20 15 | 147 10 | ... | ......... | ......... | 1 | − 0·47 | + 3·0 | 3 | − 0·41 | + 1·8 |
| ρ Capricorni ... ... | 20 21 | 108 16 | 4 | + 0·06 | + 0·9 | 12 | + 0·09 | + 0·7 | 7 | + 0·08 | + 0·3 |
| α Cygni ... ... ... | 20 37 | 45 12 | 5 | − 0·01 | + 1·1 | 1 | − 0·02 | + 1·5 | 5 | − 0·03 | + 1·3 |
| 32 Vulpeculæ ... ... | 20 49 | 62 28 | 2 | + 0·02 | + 1·3 | 2 | − 0·07 | − 0·1 | 9 | − 0·01 | + 1·0 |
| 61 Cygni (1st)... ... | 21 1 | 51 55 | ... | ......... | ......... | 1 | + 0·21 | + 1·8 | 3 | + 0·26 | + 0·7 |
| ζ Cygni ... ... ... | 21 7 | 60 20 | 5 | − 0·03 | + 0·5 | 6 | − 0·01 | + 0·9 | 9 | + 0·03 | + 1·2 |
| α Cephei ... ... ... | 21 15 | 28 0 | ... | ......... | ......... | ... | ......... | ......... | 3 | + 0·04 | + 0·6 |
| β Aquarii ... ... ... | 21 24 | 96 10 | 4 | + 0·03 | + 1·4 | 11 | + 0·04 | + 0·9 | 14 | + 0·05 | + 1·2 |
| β Cephei ... ... ... | 21 27 | 20 2 | ... | ......... | ......... | ... | ......... | ......... | 3 | + 0·29 | − 0·9 |
| ε Pegasi ... ... ... | 21 37 | 80 45 | 5 | − 0·03 | − 0·3 | 6 | − 0·03 | + 0·7 | 10 | − 0·02 | + 0·9 |
| 16 Pegasi... ... ... | 21 47 | 64 43 | 6 | + 0·05 | − 0·3 | 8 | − 0·06 | + 1·6 | 9 | − 0·02 | + 1·7 |
| α Aquarii ... ... .. | 21 59 | 90 59 | 7 | − 0·04 | + 0·1 | 5 | 0·00 | + 0·8 | 10 | + 0·01 | + 0·7 |
| α Gruis ... ... ... | 22 0 | 137 37 | ... | ......... | ......... | ... | ......... | ......... | 1 | − 0·06 | + 2·4 |
| θ Aquarii .. ... ... | 22 10 | 98 28 | 5 | + 0·01 | 0·0 | 1 | 0·00 | + 0·7 | 10 | + 0·01 | + 1·0 |
| π Aquarii .. .. .. | 22 28 | 90 40 | 16 | + 0·04 | + 0·8 | 9 | + 0·01 | + 1·5 | 9 | 0·00 | + 1·3 |
| ζ Pegasi ... ... ... | 22 35 | 79 53 | 10 | + 0·03 | 0·0 | 4 | − 0·01 | + 1·1 | 5 | + 0·07 | + 0·6 |
| α Pis. A. (*Fomalhaut*) | 22 50 | 120 21 | 13 | + 0·01 | + 0·1 | 8 | + 0·05 | + 0·6 | 7 | + 0·08 | + 0·7 |
| α Pegasi (*Markab*) .. | 22 58 | 75 32 | 16 | − 0·02 | + 1·1 | 4 | − 0·01 | + 2·1 | 4 | − 0·06 | + 1·8 |
| γ Piscium ... ... ... | 23 10 | 87 28 | 18 | − 0·02 | 0·0 | 8 | − 0·03 | + 1·0 | 4 | 0·00 | + 0·4 |
| κ Piscium ... ... ... | 23 20 | 89 30 | 12 | − 0·05 | + 0·7 | 12 | − 0·01 | + 1·2 | 8 | 0·00 | + 1·1 |
| ι Piscium ... ... ... | 23 33 | 85 7 | 10 | − 0·03 | − 0·6 | 11 | − 0·01 | + 0·4 | 7 | − 0·02 | + 0·6 |
| γ Cephei .. ... ... | 23 34 | 13 8 | ... | ......... | ......... | ... | ......... | ......... | 3 | + 0·36 | − 1·9 |
| δ Sculptoris ... .. | 23 42 | 118 53 | 7 | − 0·03 | + 1·3 | 13 | + 0·01 | + 1·7 | 11 | 0·00 | + 1·9 |
| ω Piscium .. ... . | 23 53 | 83 54 | 9 | − 0·03 | − 0·3 | 5 | − 0·05 | + 0·5 | 11 | − 0·02 | + 0·9 |

| Page | No. | Date and Subject | For | Read |
|---|---|---|---|---|
| | | *In Separate Results for [illegible]* | | |
| [illegible] | [illegible] | Sept. [illegible] Sec. of P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | Oct. [illegible] Magnitude | | 7.0 |
| [illegible] | [illegible] | Oct. [illegible] Sec. of R. A. | [illegible] | [illegible] |
| — | — | Nov. [illegible] — | [illegible] | [illegible] |
| [illegible] | [illegible] | July [illegible] Magnitude | 7.0 | |
| [illegible] | [illegible] | Aug. [illegible] Min. & Sec. of P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | Oct. [illegible] Sec. of R. A. | [illegible] | [illegible] |
| | | *In Mean Positions for [illegible]* | | |
| [illegible] | [illegible] | Seconds of Mean P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | Seconds of Mean R. A. | [illegible] | [illegible] |
| [illegible] | [illegible] | Star | [illegible] | Lacaille |
| [illegible] | [illegible] | Foot-note | Vol. [illegible] | Vol. [illegible] |
| [illegible] | [illegible] | Degrees of Mean P. D. | [illegible] | [illegible] |
| — | [illegible] | Star | [illegible] Aquarii | [illegible] Aquarii |
| | | *In Separate Results for [illegible]* | | |
| [illegible] | [illegible] | Aug. [illegible] Sec. of R. A. | [illegible] | [illegible] |
| — | — | — Sec. of P. D. | [illegible] | [illegible] |
| — | — | Nov. [illegible] Sec. of R. A. | [illegible] | [illegible] |
| [illegible] | [illegible] | Oct. [illegible] — | [illegible] | [illegible] |
| — | [illegible] | — | [illegible] | [illegible] |
| — | [illegible] | Oct. [illegible] — | [illegible] | [illegible] |
| [illegible] | [illegible] | Oct. [illegible] Date of Obs. | Oct. | Nov. |
| — | [illegible] | Oct. [illegible] Sec. of R. A. | [illegible] | [illegible] |
| [illegible] | [illegible] | Aug. [illegible] Star | [illegible] Piscium | [illegible] Piscium ([illegible]) |
| [illegible] | [illegible] | Dec. [illegible] Sec. of P. D. | [illegible] | [illegible] |
| — | [illegible] | Oct. [illegible] Sec. of R. A. | [illegible] | [illegible] |
| [illegible] | [illegible] | — | [illegible] | [illegible] |
| [illegible] | [illegible] | Dec. [illegible] — | [illegible] | [illegible] |
| — | — | No. of wires | | [illegible] |
| [illegible] | [illegible] | Dec. [illegible] Sec. of R. A. | [illegible] | [illegible] |
| — | — | Sec. of R. A. | [illegible] | [illegible] |
| — | [illegible] | Jan. [illegible] — | [illegible] | [illegible] |
| [illegible] | [illegible] | Feb. [illegible] Sec. of P. D. | [illegible] | [illegible] |
| — | [illegible] | Sec. of R. A. | [illegible] | [illegible] |
| [illegible] | [illegible] | Dec. [illegible] Sec. of P. D. | [illegible] | [illegible] |
| — | [illegible] | Jan. [illegible] Sec. of R. A. | [illegible] | [illegible] |
| — | — | Nov. [illegible] — | [illegible] | [illegible] |
| — | — | Sec. of P. D. | [illegible] | [illegible] |
| — | — | Nov. [illegible] Sec. of R. A. | [illegible] | [illegible] |
| — | — | Sec. of P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | Jan. [illegible] Date of Obs. | Jan. [illegible] | Jan. [illegible] |
| — | [illegible] | Jan. [illegible] Secs of R. A. | | [illegible] |
| — | [illegible] | Jan. [illegible] Magnitude | [illegible] | |
| [illegible] | [illegible] | Jan. [illegible] Sec. of R. A. | [illegible] | [illegible] |
| [illegible] | [illegible] | Jan. [illegible] Date of Obs. | Jan. | Mar. |
| [illegible] | [illegible] | Feb. [illegible] Sec. of P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | Apl. [illegible] Min. of P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | Mar. [illegible] Secs of R. A. | [illegible] | [illegible] |
| [illegible] | [illegible] | Mar. [illegible] Sec. of R. A. | [illegible] | [illegible] |
| [illegible] | [illegible] | Apl. [illegible] Sec. of P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | Apl. [illegible] — | [illegible] | [illegible] |
| — | — | May [illegible] — | [illegible] | [illegible] |
| [illegible] | [illegible] | May [illegible] Sec. of R. A. | [illegible] | [illegible] |
| — | [illegible] | Oct. [illegible] Sec. of P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | Apl. [illegible] Sec. of R. A. | [illegible] | [illegible] |
| — | — | Sec. of P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | May [illegible] — | [illegible] | [illegible] |
| [illegible] | [illegible] | July [illegible] — | [illegible] | [illegible] |
| [illegible] | [illegible] | June [illegible] Sec. of R. A. | [illegible] | [illegible] |
| [illegible] | [illegible] | Aug. [illegible] Min. & Sec. of P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | Oct. [illegible] Sec. of P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | Aug. [illegible] Deg. of P. D. | [illegible] | [illegible] |
| — | [illegible] | July [illegible] Min. of P. D. | [illegible] | [illegible] |
| — | [illegible] | Aug. [illegible] Star | B. Valparaiso Vol. [illegible] | |
| — | — | Min. & Sec. of P. D. | [illegible] | [illegible] |
| — | — | Sep. [illegible] — | [illegible] | [illegible] |
| [illegible] | [illegible] | Oct. [illegible] Star | | [illegible] Taylor |
| | | *In Mean Positions for [illegible]* | | |
| [illegible] | [illegible] | Star | [illegible] Piscium | [illegible] Piscium (Lat) |
| [illegible] | [illegible] | Seconds of Mean R. A. | [illegible] | [illegible] |
| [illegible] | — | Sec. Var. in R. A. | [illegible] | [illegible] |
| [illegible] | [illegible] | Seconds of Mean R. A. | [illegible] | [illegible] |
| — | [illegible] | — | [illegible] | [illegible] |
| [illegible] | [illegible] | Sec. Var. in R. A. | [illegible] | [illegible] |
| — | — | Sec. Var. in P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | Seconds of Mean P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | Sec. Var. in R. A. | [illegible] | [illegible] |

| Page | No. | Date and Subject | For | Read |
|---|---|---|---|---|
| [illegible] | [illegible] | Sec. Var. R. A. | [illegible] | [illegible] |
| — | — | Proper Motion in R. A. | − [illegible] | |
| — | — | Proper Motion in P. D. | + [illegible] | |
| [illegible] | [illegible] | Seconds of Mean R. A. | [illegible] | [illegible] |
| [illegible] | [illegible] | Sec. Var. in P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | Hours of Mean R. A. | [illegible] | [illegible] |
| [illegible] | [illegible] | Minutes of Mean P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | Ann. Prec. in R. A. | [illegible] | [illegible] |
| — | — | Sec. Var. in R. A. | [illegible] | [illegible] |
| — | — | Sec. Var. in P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | Sec. Var. in R. A. | [illegible] | [illegible] |
| [illegible] | [illegible] | — | [illegible] | [illegible] |
| — | [illegible] | Seconds of Mean R. A. | [illegible] | [illegible] |
| [illegible] | [illegible] | Proper Motion in R. A. | | − [illegible] |
| — | — | Proper Motion in P. D. | | + [illegible] |
| [illegible] | [illegible] | Seconds of Mean P. D. | [illegible] | [illegible] |
| — | — | Foot Note: period in days | [illegible] | [illegible] |
| [illegible] | [illegible] | Seconds of Mean R. A. | [illegible] | [illegible] |
| [illegible] | [illegible] | Proper Motion in R. A. | − | + |
| [illegible] | [illegible] | — | − | + |
| — | [illegible] | — | − | + |
| — | [illegible] | Sec. Var. in R. A. | + | − |
| [illegible] | [illegible] | Star | B. Valparaiso Vol. [illegible] | |
| — | — | Min. & Sec. of Mean P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | Star | [illegible] Cygni (Lat) | [illegible] Cygni (Lat) |
| [illegible] | [illegible] | Ann. Prec. in R. A. | [illegible] | [illegible] |
| — | — | Sec. Var. in R. A. | [illegible] | [illegible] |
| — | [illegible] | Ann. Prec. in R. A. | [illegible] | [illegible] |
| — | — | Sec. Var. in R. A. | [illegible] | [illegible] |
| — | [illegible] | Star | B. Valparaiso Vol. [illegible] | |
| [illegible] | [illegible] | Ann. Prec. in A. R. | [illegible] | [illegible] |
| — | — | Sec. Var. in R. A. | [illegible] | [illegible] |
| | | *In Separate Results for [illegible]* | | |
| [illegible] | [illegible] | Sep. [illegible] Deg. of P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | May [illegible] Min. of P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | Star | [illegible] Piscium | [illegible] Piscium (Lat) |
| [illegible] | [illegible] | Nov. [illegible] Sec. of P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | Dec. [illegible] Sec. of R. A. | [illegible] | [illegible] |
| [illegible] | [illegible] | Jan. [illegible] Sec. of P. D. | [illegible] | [illegible] |
| — | [illegible] | Jan. [illegible] Sec. of R. A. | [illegible] | [illegible] |
| [illegible] | [illegible] | Nov. [illegible] — | [illegible] | [illegible] |
| — | — | Nov. [illegible] — | [illegible] | [illegible] |
| [illegible] | [illegible] | Jan. [illegible] Min. of R. A. | [illegible] | [illegible] |
| — | [illegible] | Jan. [illegible] Star | [illegible] | [illegible] Taylor |
| [illegible] | [illegible] | Jan. [illegible] Sec. of R. A. | [illegible] | [illegible] |
| [illegible] | [illegible] | Dec. [illegible] Sec. of P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | Feb. [illegible] Magnitude | [illegible] | [illegible] |
| [illegible] | [illegible] | Feb. [illegible] Sec. of R. A. | [illegible] | [illegible] |
| [illegible] | [illegible] | Mar. [illegible] Min. of P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | Mar. [illegible] Min. of R. A. | [illegible] | [illegible] |
| [illegible] | [illegible] | Apl. [illegible] Sec. of R. A. | [illegible] | [illegible] |
| [illegible] | [illegible] | Mar. [illegible] — | [illegible] | [illegible] |
| [illegible] | [illegible] | Apr. [illegible] — | [illegible] | [illegible] |
| [illegible] | [illegible] | Jan. [illegible] Date of Obs. | Jan. [illegible] | Jan. [illegible] |
| [illegible] | [illegible] | Apl. [illegible] Min. of P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | May [illegible] — | [illegible] | [illegible] |
| [illegible] | [illegible] | May [illegible] Sec. of P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | Mar. [illegible] Date of Obs. | Mar. [illegible] | May [illegible] |
| [illegible] | [illegible] | June [illegible] Sec. of P. D. | [illegible] | [illegible] |
| — | [illegible] | May [illegible] Sec. of R. A. | [illegible] | [illegible] |
| [illegible] | [illegible] | June [illegible] Sec. of P. D. | [illegible] | [illegible] |
| — | [illegible] | July [illegible] — | [illegible] | [illegible] |
| [illegible] | [illegible] | June [illegible] Sec. of R. A. | [illegible] | [illegible] |
| [illegible] | [illegible] | July [illegible] Sec. of P. D. | [illegible] | [illegible] |
| — | [illegible] | Aug. [illegible] Min. & Sec. of P. D. | [illegible] | [illegible] |
| — | [illegible] | June [illegible] Date of Obs. | June [illegible] | Aug. [illegible] |
| [illegible] | [illegible] | Aug. [illegible] — | Aug. [illegible] | Sep. [illegible] |
| [illegible] | [illegible] | Star | [illegible] Aquarii | [illegible] Aquarii |
| [illegible] | [illegible] | Aug. [illegible] Min. & Sec. of P. D. | [illegible] | [illegible] |
| — | — | Sep. [illegible] — | [illegible] | [illegible] |
| — | [illegible] | Aug. [illegible] Deg. of P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | Aug. [illegible] Sec. of R. A. | [illegible] | [illegible] |
| — | — | Sec. of P. D. | [illegible] | [illegible] |
| — | — | Aug. [illegible] Sec. of R. A. | [illegible] | [illegible] |
| — | — | Sec. of P. D. | [illegible] | [illegible] |
| — | — | Sep. [illegible] Sec. of R. A. | [illegible] | [illegible] |
| — | — | Sec. of P. D. | [illegible] | [illegible] |
| [illegible] | [illegible] | Dec. [illegible] — | [illegible] | [illegible] |

# SEPARATE RESULTS

OF

# OBSERVATIONS

MADE WITH THE

# MADRAS MERIDIAN CIRCLE

IN THE YEAR

1862.

*Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1862. | | | No. of Wires. | Mean Polar Distance. 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h | m. | s. | | ° | ′ | ″ | |
| 1 | 21 Andromedæ α .. | Sep. | 20 | M | 0 | 1 | 15·69 | ... | 61 | 40 | 19·0 | ... |
| | . ... .. | Oct. | 10 | S | | 1 | 15·44 | ... | | 40 | 18·1 | ... |
| | . ... .. | ,, | 11 | S | | 1 | 15·49 | 6 | | 40 | 18·8 | .. |
| | ... ... .. | ,, | 13 | S | | 1 | 15·48 | ... | | 40 | 18·1 | ... |
| 2 | 47374 Lalande .. | Oct. | 21 | R | 0 | 2 | 51·21 | 4 | 93 | 19 | 45·5 | ... |
| | .. ... ... | ,, | 25 | R | | 2 | 51·09 | ... | | 19 | 45·3 | .. |
| | . ... ... | ,, | 27 | R | | 2 | 51·01 | 5 | | 19 | 45·8 | ... |
| | .. ... . | ,, | 28 | R | | 2 | 51·08 | 5 | | 19 | 45·5 | ... |
| 3 | 88 Pegasi γ ... | Sep. | 11 | R | 0 | 6 | 7·93 | ... | 75 | 35 | 2·3 | ... |
| | ... .. ... | Dec | 3 | M | | 6 | 7·91 | ... | | 35 | 1·8 | ... |
| 4 | 48 Taylor ... .. | Aug. | 26 | S | 0 | 10 | 42·55 | ... | 89 | 4 | 42·7 | ... |
| | ... ... ... | Sep. | 6 | R | | 10 | 42·48 | 5 | | 4 | 43·9 | ... |
| | ... ... ... | ,, | 18 | M | | 10 | 42·55 | ... | | 4 | 43·3 | ... |
| | ... ... .. | Oct. | 8 | S | | 10 | 42·73 | 6 | | 4 | 42·0 | ... |
| | ... ... ... | ,, | 9 | S | | 10 | 42·59 | ... | | 4 | 42·3 | ... |
| | ... ... ... | ,, | 10 | S | | 10 | 42·56 | ... | | 4 | 43·9 | . |
| | ... ... ... | ,, | 11 | S | | 10 | 42·44 | ... | | 4 | 44·4 | ... |
| | ... ... ... | ,, | 13 | S | | 10 | 42·62 | ... | | 4 | 43·7 | ... |
| | ... ... . | ,, | 14 | S | | 10 | 42·46 | 5 | | 4 | 41·6 | ... |
| | ... ... ... | ,, | 15 | S | | 10 | 42·55 | ... | | 4 | 44·1 | ... |
| | ... .. .. | ,, | 16 | R | | 10 | 42·43 | ... | | 4 | 43·9 | ... |
| | ... ... ... | ,, | 17 | R | | 10 | 42·58 | ... | | 4 | 44·6 | .. |
| | .. ... ... | ,, | 23 | R | | 10 | 42·51 | ... | | 4 | 44·0 | ... |
| | ... .. .. | ,, | 25 | R | | 10 | 42·55 | 4 | | 4 | 44·0 | ... |
| | ... .. . | ,, | 27 | R | | 10 | 42·43 | 6 | | 4 | 44·6 | ... |
| | ... ... .. | ,, | 28 | R | | 10 | 42·48 | 6 | | 4 | 43·0 | ... |
| | .. .. ... | ,, | 31 | R | | 10 | 42·47 | .. | | 4 | 42·9 | ... |
| | .. ... | Nov. | 1 | M | | 10 | 42·39 | .. | | 4 | 44·1 | .. |
| 5 | 41 Piscium *d* .. | Aug. | 12 | M | 0 | 13 | 29·79 | ... | 82 | 34 | 35·0 | ... |
| | .. ... ... | Sep. | 8 | R | | 13 | 29·86 | .. | | 34 | 35·0 | .. |
| | .. ... ... | Oct. | 6 | S | | 13 | 29·96 | ... | | 34 | 33·2 | ... |
| | ... ... ... | ,, | 7 | S | | 13 | 29·94 | . | | 34 | 33·6 | ... |
| | ... ... ... | Nov. | 3 | M | | 13 | 29·87 | ... | | 34 | 34·5 | ... |
| 6 | 44 Piscium ... ... | Aug | 26 | S | 0 | 18 | 19·92 | ... | 88 | 49 | 28·7 | .. |
| | ... ... ... | ,, | 27 | S | | 18 | 19·57 | 5 | | 49 | 28·2 | ... |

## *Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1862. | | | No. of Wires. | Mean Polar Distance. 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 6 | 44 Piscium ... ... | Oct. | 7 | S | 0 | 18 | 19·82 | 4 | 88 | 49 | 28·2 | ... |
| | ... ... ... | „ | 9 | S | | 18 | 19·57 | 5 | | 49 | 28·5 | ... |
| | ... .. ... | „ | 10 | S | | 18 | 19·83 | ... | | 49 | 29·1 | ... |
| | .. ... ... | „ | 16 | R | | 18 | 19·72 | ... | | 49 | 30·3 | ... |
| | ... ... ... | „ | 23 | R | | 18 | 19·72 | 5 | | 49 | 30·7 | ... |
| | ... ... .. | „ | 25 | R | | 18 | 19·84 | 6 | | 49 | 29·3 | ... |
| | ... ... .. | „ | 27 | R | | 18 | 19·74 | 6 | | 49 | 29·3 | ... |
| | ... ... ... | „ | 28 | R | | 18 | 19·72 | ... | | 19 | 28·9 | .. |
| | ... — ... | „ | 31 | R | | 18 | 19·62 | 5 | | 49 | 30·0 | ... |
| 7 | 12 Ceti ... ... | Sep. | 10 | R | 0 | 22 | 59·79 | ... | 94 | 43 | 13·6 | ... |
| | ... ... .. | „ | 22 | S | | 22 | 59·79 | ... | | 43 | 14·8 | ... |
| | ... ... ... | Oct. | 31 | R | | 22 | 59·73 | 5 | | 43 | 13·6 | ... |
| | ... ... .. | Dec. | 1 | M | | 22 | 59·74 | ... | | 43 | 13·2 | ... |
| | ... ... ... | „ | 2 | M | | 22 | 59·75 | ... | | 43 | 13·3 | ... |
| 8 | 670 Lalande ... ... | Sep. | 6 | R | 0 | 23 | 3·04 | 5 | 85 | 54 | 13·6 | ... |
| | ... ... ... | „ | 16 | M | | 23 | 3·00 | ... | | 54 | 14·4 | 7·0 |
| | ... ... ... | „ | 17 | M | | 23 | 2·93 | ... | | 54 | 14·0 | 7·0 |
| | ... ... ... | „ | 30 | M | | 23 | 2·76 | ... | | 54 | 15·1 | ... |
| | ... ... ... | Oct. | 1 | S | | 23 | 3·05 | ... | | 54 | 12·6 | ... |
| | ... ... .. | „ | 2 | S | | 23 | 3·00 | ... | | 54 | 13·2 | ... |
| | . ... ... | „ | 4 | S | | 23 | 2·97 | ... | | 54 | 13·1 | ... |
| | ... ... ... | „ | 6 | S | | 23 | 3·22 | ... | | 54 | 13·0 | ... |
| | ... ... ... | „ | 11 | S | | 23 | 3·13 | ... | | 54 | 13·4 | ... |
| | .. ... ... | „ | 14 | S | | 23 | 2·92 | 5 | | 54 | 13·3 | ... |
| | ... .. ... | „ | 15 | S | | 23 | 3·27 | ... | | 54 | 13·8 | ... |
| | ... — .. | „ | 17 | R | | 23 | 3·19 | 3 | | 54 | 15·2 | ... |
| 9 | ... .. ... | Nov. | 6 | M | 0 | 28 | 47·47 | ... | 89 | 8 | 14·7 | 9·0 |
| | .. .. ... | „ | 11 | M | | 28 | 47·44 | ... | | 8 | 13·7 | 9·0 |
| | ... ... ... | „ | 22 | S | | 28 | 47·73 | ... | | 8 | 13·7 | 9·0 |
| 10 | 15 Ceti .. .. | Aug. | 27 | S | 0 | 31 | 1·09 | ... | 91 | 15 | 46·4 | ... |
| | ... .. .. | Oct. | 9 | S | | 31 | 1·13 | ... | | 15 | 45·6 | ... |
| | ... .. .. | „ | 16 | R | | 31 | 1·15 | ... | | 15 | 47·8 | ... |
| | .. ... ... | „ | 17 | R | | 31 | 1·25 | 3 | | 15 | 48·1 | ... |
| 11 | 1097 Lalande ... | Nov. | 5 | M | 0 | 34 | 29·68 | ... | 89 | 0 | 36·2 | 8·0 |
| | ... .. ... | „ | 7 | M | | 34 | 29·68 | ... | | 0 | 35·5 | 8·0 |

*Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1862. | | | No. of Wires. | Mean Polar Distance. 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 11 | 1097 Lalande ... | Nov. | 12 | M | 0 | 34 | 29·70 | ... | 89 | 0 | 36·5 | 8·0 |
| | ... ... ... | Dec. | 10 | M | | 34 | 29·85 | 5 | | 0 | 34·8 | 8·0 |
| 12 | 1123 Lalande .. | Nov. | 22 | S | 0 | 35 | 35·68 | 5 | 89 | 3 | 41·0 | 8·5 |
| | ... ... .. | ,, | 25 | S | | 35 | 35·87 | 6 | | 3 | 40·6 | ... |
| 13 | 16 Ceti β. ... .. | Aug. | 26 | S | 0 | 36 | 39·52 | ... | 108 | 44 | 38·8 | ... |
| | ... ... ... | Sep. | 15 | R | | 36 | 39·55 | 5 | | 44 | 42·2 | ... |
| | ... ... .. | Oct. | 8 | S | | 36 | 39·57 | ... | | 44 | 40·3 | ... |
| | ... ... ... | ,, | 31 | R | | 36 | 39·63 | ... | | 44 | 41·2 | ... |
| | ... ... .. | Nov. | 20 | S | | 36 | 39·61 | ... | | 44 | 40·0 | ... |
| 14 | 1198 Lalande ... | Nov. | 6 | M | 0 | 38 | 0·50 | ... | 88 | 56 | 56·2 | 8·5 |
| 15 | 60 Piscium ... | Sep. | 30 | M | 0 | 40 | 15·36 | ... | 84 | 0 | 48·2 | ... |
| | ... ... .. | Oct. | 1 | S | | 40 | 15·48 | ... | | 0 | 46·4 | ... |
| | ... ... ... | ,, | 2 | S | | 40 | 15·47 | ... | | 0 | 46·1 | ... |
| | ... ... ... | ,, | 4 | | | 40 | 15·47 | ... | | 0 | 46·1 | ... |
| 16 | 235 Taylor ... ... | Oct. | 21 | R | 0 | 41 | 8·87 | 4 | 85 | 25 | 47·5 | ... |
| | ... ... ... | ,, | 27 | R | | 41 | 8·77 | 6 | | 25 | 47·2 | ... |
| | ... ... ... | ,, | 28 | R | | 41 | 8·82 | ... | | 25 | 47·1 | ... |
| | ... ... ... | Nov. | 3 | M | | 41 | 8·81 | ... | | 25 | 46·9 | ... |
| 17 | 63 Piscium δ ... | Aug. | 27 | S | 0 | 41 | 31·25 | ... | 83 | 9 | 59·3 | ... |
| | .. ... ... | Sep. | 9 | R | | 41 | 31·53 | .. | | 10 | 0·7 | ... |
| | ... ... ... | ,, | 10 | R | | 41 | 31·44 | ... | | 10 | 0·0 | ... |
| | ... ... ... | ,, | 13 | R | | 41 | 31·51 | .. | | 9 | 59·9 | ... |
| | ... ... .. | ,, | 16 | M | | 41 | 31·45 | ... | | 10 | 0·6 | ... |
| | ... ... ... | ,, | 17 | M | | 41 | 31·41 | ... | | 10 | 0·3 | .. |
| | ... .. . | ,, | 18 | M | | 41 | 31·54 | ... | | 9 | 59·7 | ... |
| | ... ... .. | ,, | 22 | S | | 41 | 31·32 | 6 | | 10 | 2·3 | ... |
| | ... ... ... | ,, | 23 | M | | 41 | 31·43 | 6 | | 10 | 0·9 | ... |
| | ... ... ... | Oct. | 6 | S | | 41 | 31·78 | 5 | | 9 | 58·4 | ... |
| | .. ... ... | Dec. | 1 | M | | 41 | 31·62 | .. | | 10 | 0·6 | . |
| 18 | ... ... .. | Nov. | 4 | M | 0 | 41 | 33·88 | .. | 89 | 7 | 11·9 | 9·5 |
| | ... ... .. | ,, | 7 | M | | 41 | 33·98 | ... | | 7 | 11·4 | 9·0 |
| | ... ... ... | ,, | 11 | M | | 41 | 33·97 | ... | | 7 | 11·3 | 9·0 |

*Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension 1862. | | | No. of Wires. | Mean Polar Distance. 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 19 | 20 Ceti ... | Sep. | 1 | P | 0 | 45 | 57·53 | 6 | 91 | 53 | 41·6 | ... |
| | ... ... .. | „ | 6 | R | | 45 | 57·33 | 6 | | 53 | 40·3 | ... |
| | ... ... ... | „ | 8 | R | | 45 | 57·43 | 4 | | 53 | 40·6 | ... |
| | ... ... ... | „ | 11 | R | | 45 | 57·39 | ... | | 53 | 39·5 | ... |
| | ... ... ... | „ | 12 | R | | 45 | 57·25 | 5 | | 53 | 39·2 | ... |
| | ... ... ... | „ | 15 | R | | 45 | 57·31 | 5 | | 53 | 40·8 | ... |
| | ... ... ... | „ | 23 | M | | 45 | 57·09 | 4 | | 53 | 40·5 | ... |
| | ... ... ... | „ | 27 | M | | 45 | 57·12 | 5 | | 53 | 40·7 | ... |
| | ... ... ... | „ | 30 | M | | 45 | 57·25 | 4 | | 53 | 41·9 | .. |
| | ... ... ... | Oct. | 3 | S | | 45 | 57·40 | ... | | 53 | 39·8 | ... |
| | ... ... ... | „ | 23 | R | | 45 | 57·33 | ... | | 53 | 41·1 | ... |
| | ... ... ... | „ | 25 | R | | 45 | 57·34 | 3 | | 53 | 39·9 | ... |
| | ... ... ... | „ | 31 | R | | 45 | 57·29 | 6 | | 53 | 40·2 | ... |
| | ... ... .. | Nov. | 1 | M | | 45 | 57·32 | ... | | 53 | 40·9 | ... |
| 20 | 0·806 W. B. E. ... | Nov. | 5 | M | 0 | 46 | 33·67 | ... | 88 | 50 | 25·0 | 10·0 |
| | ... ... .. | „ | 22 | S | | 46 | 33·72 | 5 | | 50 | 24·7 | 10·0 |
| | .. ... ... | „ | 25 | S | | 46 | 33·78 | 6 | | 50 | 25·9 | ... |
| 21 | 2 Ursæ Minoris ... | Sep. | 10 | R | 0 | 50 | 30·17 | 3 | 4 | 29 | 9·4 | ... |
| 22 | 1638 Lalande ... | Oct. | 28 | R | 0 | 50 | 34·39 | ... | 88 | 57 | 43·6 | ... |
| | ... ... ... | Nov. | 3 | M | | 50 | 34·34 | ... | | 57 | 44·1 | 7·5 |
| | ... ... ... | „ | 6 | M | | 50 | 34·36 | ... | | 57 | 43·4 | 8·0 |
| 23 | 1639 Lalande ... | Nov. | 7 | M | 0 | 50 | 36·19 | 6 | 88 | 39 | 13·1 | 8·5 |
| | ... ... ... | „ | 11 | M | | 50 | 36·20 | 5 | | 39 | 12·0 | 8·5 |
| | ... ... ... | „ | 13 | M | | 50 | 36·15 | ... | | 39 | 13·7 | ... |
| 24 | 1794 Lalande ... | Oct. | 31 | R | 0 | 54 | 52·73 | ... | 88 | 13 | 8·7 | ... |
| | ... ... .. | Nov. | 12 | M | | 54 | 52·86 | ... | | 13 | 8·2 | 8·0 |
| | ... ... ... | „ | 15 | M | | 54 | 52·77 | ... | | 13 | 6·2 | 8·0 |
| 25 | 71 Piscium ε ... | Aug. | 28 | S | 0 | 55 | 47·18 | ... | 82 | 51 | 13·3 | ... |
| | ... ... ... | Sep. | 9 | R | | 55 | 46·99 | ... | | 51 | 13·3 | ... |
| | ... ... ... | „ | 10 | R | | 55 | 46·93 | 5 | | 51 | 13·3 | .. |
| | ... ... ... | Nov. | 4 | M | | 55 | 46·90 | ... | | 51 | 12·2 | ... |
| 26 | 26 Ceti .. | Sep. | 11 | R | 0 | 56 | 42·92 | 6 | 89 | 23 | 25·7 | ... |
| | ... ... ... | „ | 12 | R | | 56 | 42·94 | ... | | 23 | 24·8 | ... |

## *Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1862. | | | No. of Wires. | Mean Polar Distance. 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 26 | 26 Ceti ... ... | Sep. | 13 | R | 0 | 56 | 42·93 | 6 | 89 | 22 | 25·2 | ... |
| | ... ... ... | ,, | 15 | R | | 56 | 42·83 | ... | | 22 | 26·9 | ... |
| | ... ... ... | ,, | 16 | M | | 56 | 42·83 | 6 | | 22 | 25·6 | ... |
| | ... ... ... | ,, | 18 | M | | 56 | 43·01 | 5 | | 22 | 26·3 | ... |
| | ... ... ... | ,, | 22 | S | | 56 | 42·83 | ... | | 22 | 27·0 | ... |
| | ... ... ... | ,, | 23 | M | | 56 | 42·82 | ... | | 22 | 27·6 | ... |
| | ... ... ... | Oct. | 11 | S | | 56 | 43·10 | ... | | 22 | 26·3 | ... |
| | ... ... ... | ,, | 13 | S | | 56 | 42·94 | ... | | 22 | 25·9 | ... |
| | ... ... ... | ,, | 14 | S | | 56 | 42·99 | ... | | 22 | 26·5 | ... |
| | ... ... ... | ,, | 15 | S | | 56 | 43·01 | ... | | 22 | 26·0 | ... |
| | ... ... ... | ,, | 16 | R | | 56 | 42·78 | ... | | 22 | 27·2 | ... |
| | ... ... ... | ,, | 21 | R | | 56 | 42·98 | ... | | 22 | 26·2 | ... |
| | ... ... ... | ,, | 23 | R | | 56 | 42·86 | ... | | 22 | 26·1 | ... |
| | ... ... ... | ,, | 27 | R | | 56 | 42·98 | ... | | 22 | 26·7 | ... |
| 27 | 1879 Lalande ... | Oct. | 28 | R | 0 | 57 | 37·82 | ... | 88 | 25 | 33·8 | 7·8 |
| | ... ... ... | Nov. | 5 | M | | 57 | 37·70 | ... | | 25 | 34·5 | 7·5 |
| | ... ... ... | ,, | 14 | M | | 57 | 37·73 | ... | | 25 | 33·5 | 7·5 |
| 28 | 0·1031 W. B. E. ... | Nov. | 6 | M | 0 | 59 | 1·83 | ... | 88 | 6 | 27·3 | 9·0 |
| | ... ... ... | ,, | 22 | S | | 59 | 1·75 | 4 | | 6 | 28·4 | 9·0 |
| | ... ... ... | Dec. | 2 | M | | 59 | 1·71 | ... | | 6 | 27·4 | 9·0 |
| 29 | 29 Ceti ... | Nov. | 29 | S | 1 | 0 | 52·70 | ... | 88 | 43 | 47·2 | ... |
| | | Dec. | 3 | M | | 0 | 52·78 | ... | | 43 | 45·9 | 7·0 |
| 30 | 80 Piscium *e* ... | Aug. | 26 | S | 1 | 1 | 15·71 | ... | 85 | 4 | 51·2 | ... |
| | ... ... ... | ,, | 27 | S | | 1 | 15·66 | ... | | 4 | 52·8 | ... |
| | ... ... ... | ,, | 28 | S | | 1 | 15·90 | ... | | 4 | 52·7 | ... |
| | ... ... ... | Sep. | 1 | P | | 1 | 15·76 | 6 | | 4 | 53·8 | ... |
| | ... ... ... | ,, | 6 | R | | 1 | 15·75 | 6 | | 4 | 52·1 | ... |
| | ... ... ... | ,, | 8 | R | | 1 | 15·73 | 6 | | 4 | 52·7 | ... |
| | ... ... ... | ,, | 9 | R | | 1 | 15·78 | ... | | 4 | 53·4 | ... |
| | ... ... ... | ,, | 11 | R | | 1 | 15·70 | 5 | | 4 | 53·7 | ... |
| | ... ... ... | ,, | 12 | R | | 1 | 15·70 | 5 | | 4 | 51·7 | ... |
| | ... ... ... | ,, | 13 | R | | 1 | 15·82 | 6 | | 4 | 53·0 | ... |
| | ... ... ... | Oct. | 7 | S | | 1 | 15·72 | ... | | 4 | 51·4 | ... |
| | ... ... ... | ,, | 8 | S | | 1 | 15·77 | 3 | | 4 | 51·0 | ... |
| | ... ... ... | ,, | 9 | S | | 1 | 15·73 | ... | | 4 | 52·1 | ... |
| | ... ... ... | ,, | 10 | S | | 1 | 15·72 | ... | | 4 | 53·6 | ... |

## *Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1862. | | | No. of Wires. | Mean Polar Distance. 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 30 | 80 Piscium *e* ... | Oct. | 14 | S | 1 | 1 | 15·74 | ... | 85 | 4 | 53·0 | ... |
| | ... ... ... | ,, | 15 | S | | 1 | 16·05 | 4 | | 4 | 53·3 | ... |
| | ... ... ... | ,, | 17 | R | | 1 | 15·73 | 6 | | 4 | 53·4 | ... |
| 31 | I. 15 W. B. E. ... | Nov | 11 | M | 1 | 2 | 53·51 | | 87 | 30 | 17·6 | 9·0 |
| 32 | 2089 Lalande ... | Oct. | 28 | R | 1 | 3 | 21·30 | | 88 | 10 | 54·2 | 8·3 |
| | ... ... .. | Nov. | 12 | M | | 3 | 21·16 | ... | | 10 | 53·3 | 8·5 |
| | ... ... ... | ,, | 15 | M | | 3 | 21·18 | ... | | 10 | 52·0 | 8·5 |
| 33 | 33 Ceti ... ... | Oct. | 31 | R | 1 | 3 | 27·54 | ... | 88 | 17 | 23·5 | ... |
| | ... ... ... | Nov. | 1 | M | | 3 | 27·52 | ... | | 17 | 23·9 | ... |
| | ... ... ... | ,, | 13 | M | | 3 | 27·61 | ... | | 17 | 23·5 | ... |
| 34 | I. 101 W. B. E. ... | Nov. | 5 | M | 1 | 7 | 39·50 | ... | 87 | 54 | 36·6 | 9·0 |
| | ... ... ... | ,, | 6 | M | | 7 | 39·60 | ... | | 54 | 36·2 | 9·0 |
| | ... ... ... | ,, | 22 | S | | 7 | 39·91 | ... | | 54 | 37·3 | 9·0 |
| 35 | ... ... ... | Oct. | 28 | R | 1 | 9 | 9·99 | 6 | 87 | 42 | 42·1 | 10·0 |
| | ... ... ... | ,, | 31 | R | | 9 | 10·02 | 5 | | 42 | 43·6 | ... |
| | ... ... ... | Dec. | 1 | M | | 9 | 9·84 | 5 | | 42 | 42·8 | 10·0 |
| 36 | 89 Piscium *f* ... | Sep. | 30 | M | 1 | 10 | 40·85 | ... | 87 | 6 | 49·6 | ... |
| | ... ... ... | Oct. | 1 | S | | 10 | 40·95 | 6 | | 6 | 46·8 | ... |
| | ... ... ... | ,, | 2 | S | | 10 | 40·97 | ... | | 6 | 47·3 | ... |
| | ... ... ... | ,, | 3 | S | | 10 | 40·90 | ... | | 6 | 47·7 | ... |
| | ... .. ... | ,, | 4 | S | | 10 | 40·77 | ... | | 6 | 47·0 | ... |
| | ... ... .. | ,, | 7 | S | | 10 | 40·98 | ... | | 6 | 46·5 | ... |
| | ... ... ... | ,, | 8 | S | | 10 | 41·17 | ... | | 6 | 46·2 | ... |
| | ... ... ... | ,, | 9 | S | | 10 | 40·94 | ... | | 6 | 46·3 | ... |
| | ... ... ... | ,, | 10 | S | | 10 | 40·78 | ... | | 6 | 48·2 | ... |
| | ... ... ... | ,, | 11 | S | | 10 | 41·06 | ... | | 6 | 47·1 | ... |
| | ... ... ... | ,, | 15 | S | | 10 | 41·05 | .. | | 6 | 48·1 | ... |
| | ... ... ... | ,, | 16 | R | | 10 | 40·90 | ... | | 6 | 48·2 | ... |
| | ... ... ... | ,, | 18 | R | | 10 | 41·13 | ... | | 6 | 48·4 | ... |
| 37 | 43 Ceti ... ... | Oct. | 1 | S | 1 | 15 | 31·47 | 6 | 91 | 10 | 19·9 | ... |
| | ... ... ... | ,, | 2 | S | | 15 | 31·38 | ... | | 10 | 20·5 | ... |
| | ... ... ... | ,, | 3 | S | | 15 | 31·36 | ... | | 10 | 21·3 | ... |
| | ... ... ... | ,, | 4 | S | | 15 | 31·49 | ... | | 10 | 20·6 | ... |

*Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1862. | | | No. of Wires. | Mean Polar Distance. 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 37 | 43 Ceti ... .. | Oct. | 9 | S | 1 | 15 | 31·34 | ... | 91 | 10 | 20·1 | ... |
| | ... ... ... | „ | 13 | S | | 15 | 31·54 | ... | | 10 | 21·6 | ... |
| | ... ... ... | „ | 15 | S | | 15 | 31·29 | ... | | 10 | 22·5 | ... |
| | ... ... ... | „ | 16 | R | | 15 | 31·41 | ... | | 10 | 22·0 | ... |
| 38 | 45 Ceti θ ... ... | Oct. | 27 | R | 1 | 17 | 7·61 | 4 | 98 | 53 | 47·3 | ... |
| | ... ... ... | „ | 31 | R | | 17 | 7·54 | 5 | | 53 | 47·2 | ... |
| | ... ... ... | Nov. | 26 | S | | 17 | 7·47 | ... | | 53 | 47·2 | ... |
| | ... ... ... | „ | 28 | S | | 17 | 7·32 | ... | | 53 | 48·5 | ... |
| 39 | 93 Piscium ρ ... ... | Oct. | 8 | S | 1 | 18 | 49·25 | ... | 71 | 32 | 49·3 | ... |
| 40 | 465 Taylor ... ... | Sep. | 30 | M | 1 | 19 | 23·48 | 6 | 91 | 7 | 3·0 | ... |
| | ... ... ... | Nov. | 22 | S | | 19 | 23·69 | ... | | 7 | 2·4 | 7·0 |
| | ... .. ... | „ | 25 | S | | 19 | 23·76 | 4 | | 7 | 2·9 | ... |
| 41 | 98 Piscium μ ... | Aug. | 26 | S | 1 | 22 | 57·55 | ... | 84 | 34 | 6·5 | ... |
| | ... ... ... | „ | 27 | S | | 22 | 57·33 | 3 | | 34 | 6·8 | ... |
| | ... ... ... | Sep. | 9 | R | | 22 | 57·34 | 5 | | 34 | 8·3 | ... |
| | ... ... ... | „ | 13 | R | | 22 | 57·52 | 5 | | 34 | 7·7 | ... |
| | ... ... ... | „ | 16 | M | | 22 | 57·28 | ... | | 34 | 8·2 | ... |
| | ... ... ... | „ | 23 | M | | 22 | 57·34 | ... | | 34 | 7·9 | ... |
| | ... ... ... | „ | 27 | M | | 22 | 57·47 | ... | | 34 | 8·1 | ... |
| 42 | 99 Piscium η ... | Sep. | 10 | R | 1 | 24 | 6·13 | ... | 75 | 22 | 1·2 | ... |
| | ... ... ... | „ | 11 | R | | 24 | 6·16 | ... | | 22 | 1·0 | ... |
| | ... ... ... | Oct. | 7 | S | | 24 | 6·06 | ... | | 21 | 58·9 | ... |
| | ... ... ... | „ | 9 | S | | 24 | 6·23 | ... | | 22 | 0·1 | ... |
| | ... ... ... | „ | 28 | R | | 24 | 6·19 | ... | | 22 | 0·9 | ... |
| | ... ... ... | Nov. | 20 | S | | 24 | 6·18 | ... | | 22 | 1·4 | ... |
| | ... ... ... | „ | 24 | S | | 24 | 6·20 | 6 | | 22 | 1·4 | ... |
| 43 | 514 Taylor ... .. | Dec. | 1 | M | 1 | 28 | 27·10 | ... | 73 | 16 | 27·0 | 6·0 |
| | ... ... ... | „ | 2 | M | | 28 | 26·98 | ... | | 16 | 27·6 | 6·0 |
| 44 | 106 Piscium ν ... | Aug. | 26 | S | 1 | 34 | 15·13 | ... | 88 | 12 | 42·7 | ... |
| | ... ... ... | „ | 28 | S | | 34 | 15·22 | ... | | 12 | 42·8 | ... |
| | ... ... ... | Sep. | 6 | R | | 34 | 15·10 | 2 | | 12 | 43·3 | ... |
| | ... ... .. | „ | 8 | R | | 34 | 15·20 | ... | | 12 | 43·3 | ... |
| | ... ... ... | „ | 10 | R | | 34 | 15·04 | ... | | 12 | 43·9 | ... |

*Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension 1862. | | | No. of Wires. | Mean Polar Distance 1882. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 44 | 106 Piscium ν ... | Sep. | 11 | R | 1 | 34 | 15·02 | ... | 85 | 12 | 43·7 | ... |
| | ... | ,, | 12 | R | | 34 | 15·15 | 6 | | 12 | 43·2 | ... |
| | ... | ,, | 13 | R | | 34 | 15·03 | 6 | | 12 | 43·5 | ... |
| | ... | ,, | 15 | R | | 34 | 15·15 | 6 | | 12 | 44·1 | ... |
| | ... | ,, | 16 | M | | 34 | 15·10 | ... | | 12 | 43·1 | ... |
| | ... | ,, | 17 | M | | 34 | 15·11 | ... | | 12 | 43·5 | ... |
| | ... | ,, | 18 | M | | 34 | 15·26 | ... | | 12 | 43·9 | ... |
| | ... | ,, | 23 | M | | 34 | 15·13 | ... | | 12 | 44·5 | ... |
| | ... | Nov. | 12 | M | | 34 | 15·14 | ... | | 12 | 43·3 | ... |
| | ... | ,, | 13 | M | | 34 | 15·11 | ... | | 12 | 45·0 | ... |
| | ... | ,, | 20 | S | | 34 | 14·99 | ... | | 12 | 43·0 | ... |
| | ... | ,, | 24 | S | | 34 | 14·98 | 5 | | 12 | 44·7 | ... |
| | ... | ,, | 28 | S | | 34 | 15·27 | ... | | 12 | 44·3 | ... |
| | ... | Dec. | 3 | M | | 34 | 15·06 | ... | | 12 | 43·8 | ... |
| | ... | ,, | 4 | M | | 34 | 15·08 | ... | | 12 | 43·3 | ... |
| | ... | ,, | 6 | M | | 34 | 15·18 | ... | | 12 | 44·1 | ... |
| | ... | ,, | 10 | M | | 34 | 15·12 | ... | | 12 | 44·3 | ... |
| 45 | 590 Taylor ... | Sep. | 10 | R | 1 | 41 | 17·31 | ... | 87 | 0 | 18·7 | ... |
| | ... | ,, | 11 | R | | 41 | 17·26 | ... | | 0 | 18·9 | ... |
| | ... | ,, | 17 | M | | 41 | 17·02 | 4 | | 0 | 18·0 | ... |
| | ... | ,, | 18 | M | | 41 | 17·17 | ... | | 0 | 17·5 | ... |
| 46 | 111 Piscium ξ | Sep. | 6 | R | 1 | 46 | 24·86 | 4 | 87 | 29 | 41·5 | ... |
| | ... | ,, | 8 | R | | 46 | 24·66 | ... | | 29 | 42·0 | ... |
| | ... | ,, | 15 | R | | 46 | 24·78 | 5 | | 29 | 43·7 | ... |
| | ... | ,, | 16 | M | | 46 | 24·47 | ... | | 29 | 43·7 | ... |
| | ... | ,, | 23 | M | | 46 | 24·78 | 6 | | 29 | 46·1 | ... |
| 47 | 6 Arietis β ... | Aug. | 28 | S | 1 | 47 | 1·03 | 4 | 69 | 52 | 6·4 | ... |
| | ... | Sep. | 1 | P | | 47 | 1·26 | ... | | 52 | 5·0 | ... |
| | ... | ,, | 10 | R | | 47 | 1·30 | ... | | 52 | 5·9 | ... |
| | ... | ,, | 11 | R | | 47 | 1·29 | ... | | 52 | 6·0 | ... |
| | ... | ,, | 12 | R | | 47 | 1·37 | ... | | 52 | 6·3 | ... |
| | ... | ,, | 13 | R | | 47 | 1·31 | ... | | 52 | 6·5 | ... |
| | ... | Nov. | 4 | M | | 47 | 1·43 | 5 | | 52 | 6·8 | ... |
| | ... | ,, | 5 | M | | 47 | 1·30 | ... | | 52 | 6·1 | ... |
| | ... | ,, | 11 | M | | 47 | 1·26 | ... | | 52 | 5·9 | ... |
| | ... | ,, | 12 | M | | 47 | 1·33 | ... | | 52 | 6·6 | ... |
| | ... | ,, | 22 | S | | 47 | 1·21 | ... | | 52 | 6·4 | ... |

*Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1862. | | | No. of Wires. | Mean Polar Distance. 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 47 | 6 Arietis β ... .. | Nov. | 24 | S | 1 | 47 | 1·34 | ... | 60 | 52 | 6·2 | ... |
| | ... .. . | „ | 26 | S | | 47 | 1·35 | ... | | 52 | 6·4 | ... |
| | ... ... .. | „ | 28 | S | | 47 | 1·31 | .. | | 52 | 6·7 | ... |
| | ... ... ... | Dec. | 4 | M | | 47 | 1·33 | ... | | 52 | 6·6 | ... |
| 48 | 13 Arietis α .. | Sep. | 1 | P | 1 | 59 | 24·05 | ... | 67 | 11 | 32·1 | ... |
| | ... ... .. | „ | 15 | R | | 59 | 23·93 | ... | | 11 | 32·8 | ... |
| | ... ... ... | Oct. | 9 | S | | 59 | 23·91 | ... | | 11 | 30·0 | ... |
| | ... ... ... | „ | 10 | S | | 59 | 23·89 | ... | | 11 | 32·3 | ... |
| | ... .. | Nov. | 4 | M | | 59 | 24·00 | ... | | 11 | 31·9 | ... |
| | .. ... ... | „ | 8 | M | | 59 | 23·82 | ... | | 11 | 30·7 | ... |
| | ... ... ... | „ | 20 | S | | 59 | 23·97 | .. | | 11 | 29·8 | ... |
| | ... ... ... | „ | 29 | S | | 59 | 23·89 | ... | | 11 | 32·0 | ... |
| | ... ... ... | Dec. | 4 | M | | 59 | 23·92 | ... | | 11 | 32·4 | ... |
| | ... ... .. | „ | 5 | M | | 59 | 24·03 | ... | | 11 | 32·5 | .. |
| | ... ... ... | „ | 11 | M | | 59 | 23·98 | ... | | 11 | 31·8 | ... |
| 49 | 21 Arietis .. | Nov. | 11 | M | 2 | 7 | 53·42 | ... | 65 | 35 | 54·2 | 6·5 |
| | ... ... .. | Dec. | 1 | M | | 7 | 53·36 | ... | | 35 | 56·0 | 7·0 |
| | .. .. ... | „ | 5 | M | | 7 | 53·10 | ... | | 35 | 55·6 | ... |
| 50 | 67 Ceti .. | Oct. | 31 | R | 2 | 10 | 5·98 | ... | 97 | 3 | 35·1 | ... |
| | ... .. ... | Nov. | 8 | M | | 10 | 6·00 | ... | | 3 | 35·4 | ... |
| | ... ... .. | „ | 22 | S | | 10 | 6·03 | ... | | 3 | 35·8 | ... |
| | ... ... ... | „ | 26 | S | | 10 | 6·02 | ... | | 3 | 35·7 | ... |
| | ... ... .. | „ | 29 | S | | 10 | 6·06 | ... | | 3 | 37·2 | ... |
| | . ... .. | Dec. | 10 | M | | 10 | 5·97 | ... | | 3 | 36·6 | ... |
| 51 | 22 Arietis θ ... | Oct. | 9 | S | 2 | 10 | 27·15 | ... | 70 | 44 | 20·3 | ... |
| 52 | 68 Ceti o. Var 1 ... | Oct. | 28 | R | 2 | 12 | 22·55 | ... | 93 | 36 | 21·5 | 5·5 |
| | ... .. .. | Nov. | 3 | M | | 12 | 22·40 | 4 | | 36 | 22·4 | 5·5 |
| | ... ... ... | „ | 4 | M | | 12 | 22·62 | ... | | 36 | 22·3 | 6·0 |
| 53 | 73 Ceti ξ² .. | Nov. | 11 | M | 2 | 20 | 49·56 | 5 | 82 | 9 | 37·7 | ... |
| | ... ... .. | „ | 12 | M | | 20 | 49·39 | ... | | 9 | 37·7 | ... |
| | .. ... ... | „ | 22 | S | | 20 | 49·57 | ... | | 9 | 38·2 | ... |
| | ... ... ... | „ | 25 | S | | 20 | 49·52 | ... | | 9 | 38·1 | ... |
| | . ... ... | „ | 29 | S | | 20 | 49·57 | ... | | 9 | 39·6 | ... |
| | ... ... ... | Dec. | 1 | M | | 20 | 49·48 | ... | | 9 | 37·5 | ... |

*Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation | | Observer. | Mean Right Ascension. 1862. | | | No. of Wires. | Mean Polar Distance 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 54 | 26 R. P. L. ... | Nov. | 7 | M | 2 | 21 | 56·85 | 5 | 3 | 33 | 29·0 | ... |
| | ... ... .. | „ | 8 | M | | 21 | 56·70 | 3 | | 33 | 29·0 | ... |
| | .. .. ... | „ | 15 | M | | 21 | 58·61 | 7 | | 33 | 30·5 | ... |
| 55 | 31 Arietis ... | Dec. | 2 | M | 2 | 29 | 6·58 | ... | 78 | 9 | 11·0 | ... |
| | ... ... ... | „ | 3 | M | | 29 | 6·60 | 5 | | 9 | 11·1 | ... |
| 56 | 32 Arietis ν ... | Sep. | 11 | R | 2 | 30 | 59·20 | 5 | 68 | 38 | 16·1 | ... |
| 57 | 86 Ceti γ ... | Nov. | 8 | M | 2 | 36 | 9·07 | ... | 87 | 20 | 51·4 | ... |
| | ... ... ... | „ | 25 | S | | 36 | 9·13 | ... | | 20 | 53·0 | ... |
| | .. ... ... | Dec. | 6 | M | | 36 | 9·09 | ... | | 20 | 51·9 | ... |
| | ... ... ... | „ | 10 | M | | 36 | 9·14 | ... | | 20 | 53·1 | ... |
| 58 | 42 Arietis π .. | Sep. | 11 | R | 2 | 41 | 35·86 | ... | 73 | 6 | 45·1 | ... |
| 59 | 48 Arietis ε ... ... | Oct. | 10 | S | 2 | 51 | 19·54 | ... | 69 | 12 | 50·4 | ... |
| | ... ... ... | Nov. | 5 | M | | 51 | 19·64 | ... | | 12 | 50·5 | ... |
| 60 | 92 Ceti α ... ... | Nov. | 8 | M | 2 | 55 | 4·02 | ... | 86 | 27 | 13·4 | ... |
| | ... ... ... | „ | 25 | S | | 55 | 3·99 | 5 | | 27 | 14·5 | ... |
| 61 | 33 R. P. L ... ... | Dec. | 1 | M | 3 | 0 | 16·70 | 5 | 5 | 35 | 17·0 | ... |
| | .. ... ... | „ | 2 | M | | 0 | 17·10 | 3 | | 35 | 17·4 | ... |
| 62 | 57 Arietis δ ... ... | Nov. | 5 | M | 3 | 3 | 44·63 | ... | 70 | 47 | 53·8 | ... |
| | ... .. ... | „ | 6 | M | | 3 | 44·58 | ... | | 47 | 53·4 | ... |
| 63 | 58 Arietis ζ ... ... | Dec. | 3 | M | 3 | 6 | 58·55 | 4 | 60 | 28 | 11·3 | ... |
| | ... .. ... | „ | 4 | M | | 6 | 58·22 | ... | | 28 | 10·8 | ... |
| 64 | . ... ... | Nov. | 29 | S | 3 | 12 | 18·91 | 5 | 130 | 58 | 40·2 | 8·0 |
| 65 | 33 Persei α .. .. | Dec. | 11 | M | 3 | 14 | 29·21 | ... | 40 | 38 | 1·7 | ... |
| 66 | 17 Tauri ... ... | Nov. | 6 | M | 3 | 36 | 41·22 | ... | 66 | 19 | 25·1 | ... |
| | ... ... ... | „ | 7 | M | | 36 | 41·23 | ... | | 19 | 25·2 | ... |
| 67 | ... ... ... | Nov. | 29 | S | 3 | 38 | 1·08 | ... | 136 | 13 | 17·3 | 8·0 |

*Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1862. | | | No. of Wires. | Mean Polar Distance. 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 68 | 25 Tauri η ... ... | Nov. | 25 | S | 3 | 39 | 17·11 | ... | 66 | 19 | 30·1 | ... |
| | ... ... ... | Dec. | 6 | M | | 39 | 17·05 | ... | | 19 | 29·0 | ... |
| | ... ... ... | ,, | 11 | M | | 39 | 17·13 | ... | | 19 | 29·5 | ... |
| 69 | 34 Eridani $\gamma^1$ ... | Dec. | 2 | M | 3 | 51 | 35·43 | ... | 103 | 54 | 11·0 | ... |
| | ... ... ... | ,, | 6 | M | | 51 | 35·52 | ... | | 54 | 12·5 | ... |
| 70 | ... ... ... | Nov. | 29 | S | 3 | 53 | 0·15 | 5 | 128 | 25 | 47·3 | 10·0 |
| 71 | 35 Tauri λ. Var 1 ... | Nov. | 25 | S | 3 | 53 | 2·16 | ... | 77 | 54 | 10·5 | ... |
| 72 | 37 Tauri $A^1$ ... ... | Dec. | 4 | M | 3 | 56 | 32·43 | ... | 68 | 17 | 55·8 | .. |
| | ... — ... | ,, | 5 | M | | 56 | 32·50 | ... | | 17 | 55·5 | ... |
| 73 | ... ... . | Nov. | 29 | S | 4 | 3 | 39·47 | 5 | 146 | 56 | 47·4 | 9·0 |
| 74 | 74 Tauri ε ... ... | Nov. | 7 | M | 4 | 20 | 33·86 | ... | 71 | 7 | 45·0 | ... |
| | ... ... ... | ,, | 8 | M | | 20 | 33·79 | ... | | 7 | 44·7 | ... |
| | ... ... ... | Dec. | 4 | M | | 20 | 33·58 | ... | | 7 | 46·3 | ... |
| | ... ... ... | ,, | 8 | M | | 20 | 33·76 | ... | | 7 | 45·3 | ... |
| 75 | 87 Tauri α ... ... | Dec. | 8 | M | 4 | 28 | 0·29 | ... | 73 | 46 | 18·5 | ... |
| 76 | 3 Aurigæ ι ... | Dec. | 8 | M | 4 | 48 | 0·57 | ... | 57 | 3 | 23·5 | ... |
| | ... ... ... | ,, | 9 | M | | 48 | 0·76 | ... | | 3 | 25·4 | ... |
| 77 | 109 Tauri n ... | Dec. | 5 | M | 5 | 10 | 59·17 | ... | 68 | 3 | 0·4 | 6·0 |
| 78 | 112 Tauri β. ... | Nov. | 8 | M | 5 | 17 | 34·31 | ... | 61 | 30 | 47·8 | ... |
| | ... ... ... | Dec. | 5 | M | | 17 | 34·00 | ... | | 30 | 50·1 | ... |
| 79 | 40 R. P. L. ... | Dec. | 8 | M | 5 | 18 | 8·42 | 3 | 4 | 53 | 10·3 | ... |
| 80 | 123 Tauri ζ. ... | Nov. | 8 | M | 5 | 29 | 23·09 | ... | 68 | 56 | 43·2 | ... |
| 81 | ... ... .. | Dec. | 8 | M | 5 | 49 | 21·27 | 3 | 63 | 50 | 15·9 | ... |
| 82 | 43 R. P. L. ... | Dec. | 9 | M | 5 | 51 | 7·35 | 3 | 3 | 14 | 23·0 | ... |
| 83 | 13 Geminorum μ. ... | Dec. | 9 | M | 6 | 14 | 36·60 | ... | 67 | 25 | 9·7 | ... |

*Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Stars. | Date of Observation. | Observer. | Mean Right Ascension. 1862. h. | m. | s. | No. of Wires. | Mean Polar Distance. 1862. ° | ′ | ″ | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 84 | 24 Geminorum γ. ... | Dec. 8 | M | 6 | 29 | 44·39 | ... | 73 | 29 | 13·2 | ... |
| | ... ... ... | „ 9 | M | | 29 | 44·34 | ... | | 29 | 11·9 | ... |
| 85 | 68 Geminorum. ... | Dec. 9 | M | 7 | 25 | 43·71 | ... | 73 | 52 | 50·3 | ... |
| 86 | 81 Geminorum g ... | Dec. 8 | M | 7 | 38 | 7·88 | ... | 71 | 9 | 24·2 | ... |
| | ... ... ... | „ 9 | M | | 38 | 7·84 | ... | | 9 | 24·1 | ... |
| 87 | 70 R. P. L. ... s.p | Oct. 7 | S | 9 | 45 | 55·84 | 6 | 5 | 25 | 14·4 | ... |
| 88 | 72 R. P. L. ... s.p | Sep. 6 | R | 10 | 9 | 0·83 | 5 | 5 | 3 | 3·2 | ... |
| | ... ... s.p | Oct. 2 | S | | 9 | 0·22 | 7 | | 3 | 3·2 | ... |
| | ... ... s.p | „ 13 | S | | 9 | 0·02 | 5 | | 3 | 3·7 | ... |
| | ... ... s.p | „ 15 | S | | 9 | 0·41 | 3 | | 3 | 1·5 | ... |
| | ... ... s.p | „ 16 | R | | 9 | 0·54 | 3 | | 3 | 2·8 | ... |
| | ... ... s.p | Nov. 3 | M | | 9 | 0·73 | 5 | | 3 | 3·1 | ... |
| | ... ... s.p | „ 5 | M | | 9 | 0·62 | 5 | | 3 | 2·8 | ... |
| | ... ... s.p | „ 6 | M | | 9 | 1·05 | 3 | | 3 | 2·8 | ... |
| | ... ... s.p | „ 11 | M | | 9 | 1·20 | 5 | | 3 | 2·0 | ... |
| | ... ... s.p | „ 13 | M | | 9 | 0·19 | 3 | | 3 | 2·1 | ... |
| 89 | 79 R. P. L. ... s.p | Oct. 28 | R | 10 | 54 | 55·00 | 3 | 1 | 36 | 45·1 | ... |
| 90 | 89 R. P. L. .. s.p | Sep. 10 | R | 11 | 57 | 44·81 | 3 | 3 | 38 | 52·3 | ... |
| | ... ... s.p | Nov. 7 | M | | 57 | 44·59 | 5 | | 38 | 52·2 | ... |
| | ... ... s.p | Dec. 1 | M | | 57 | 45·57 | 3 | | 38 | 54·5 | ... |
| 91 | 2 Corvi ε ... | June 3 | M | 12 | 3 | 1·90 | 6 | 111 | 51 | 7·8 | ... |
| | ... ... ... | „ 4 | M | | 3 | 1·74 | ... | | 51 | 9·0 | ... |
| | ... ... ... | „ 5 | M | | 3 | 1·81 | ... | | 51 | 8·1 | ... |
| 92 | 92 R. P. L. ... s.p | Nov. 15 | M | 12 | 12 | 50·01 | 3 | 2 | 47 | 49·5 | ... |
| 93 | 93 R. P. L. .. s.p | Nov. 4 | M | 12 | 14 | 20·34 | 3 | 1 | 32 | 7·8 | ... |
| 94 | 21 Virginis q | June 7 | M | 12 | 26 | 39·49 | 6 | 98 | 41 | 26·0 | ... |
| 95 | 9 Corvi β .. | June 3 | M | 12 | 27 | 8·70 | 4 | 113 | 38 | 0·0 | ... |
| | ... .. ... | „ 4 | M | | 27 | 8·49 | ... | | 38 | 0·4 | ... |
| | ... ... .. | „ 5 | M | | 27 | 8·49 | ... | | 38 | 1·3 | ... |

*Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension 1862. | | | No. of Wires. | Mean Polar Distance. 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 96 | 67 Virginis α ... ... | June | 3 | M | 13 | 17 | 55·68 | 6 | 100 | 26 | 25·2 | ... |
| | ... .. ... | „ | 5 | M | | 17 | 55·57 | ... | | 26 | 26·3 | ... |
| 97 | 103 R. P. L ... s.p | Nov. | 8 | M | 13 | 20 | 20·74 | 3 | 4 | 31 | 28·7 | .. |
| 98 | 79 Virginis ζ. ... | June | 4 | M | 13 | 27 | 39·80 | 6 | 59 | 53 | 22·7 | . |
| | ... ... ... | „ | 9 | R | | 27 | 39·82 | ... | | 53 | 22·4 | ... |
| 99 | 85 Ursæ Majoris η. .. | June | 9 | R | 13 | 42 | 6·02 | ... | 39 | 59 | 49·7 | ... |
| 100 | 8 Bootis η. ... ... | June | 7 | M | 13 | 48 | 6·80 | 4 | 70 | 54 | 34·3 | ... |
| | ... ... ... | „ | 10 | R | | 48 | 6·69 | ... | | 54 | 31·6 | ... |
| 101 | 93 Virginis τ. .. | June | 16 | S | 13 | 54 | 37·51 | ... | 87 | 47 | 10·4 | .. |
| 102 | 108 R. P. L. ... | June | 5 | M | 14 | 4 | 11·73 | 5 | 3 | 34 | 54·2 | ... |
| 103 | 16 Bootis α ... ... | June | 7 | M | 14 | 9 | 22·13 | ... | 70 | 5 | 52·4 | .. |
| | ... ... ... | „ | 10 | R | | 9 | 22·02 | ... | | 5 | 52·2 | ... |
| | ... ... .. | „ | 16 | S | | 9 | 22·07 | ... | | 5 | 51·0 | ... |
| | ... ... ... | „ | 21 | S | | 9 | 21·91 | ... | | 5 | 51·7 | ... |
| 104 | 100 Virginis λ. ... | June | 9 | R | 14 | 11 | 38·72 | ... | 102 | 44 | 2·4 | .. |
| 105 | 25 Bootis ρ. ... .. | June | 2 | P | 14 | 25 | 52·99 | 6 | 59 | 1 | 18·7 | ... |
| | ... ... . | „ | 3 | M | | 25 | 52·70 | 3 | | 1 | 17·9 | ... |
| | ... .. .. | „ | 7 | M | | 25 | 52·93 | ... | | 1 | 16·8 | ... |
| | ... ... ... | „ | 10 | R | | 25 | 52·93 | ... | | 1 | 17·8 | ... |
| | ... ... ... | „ | 16 | S | | 25 | 52·88 | ... | | 1 | 17·1 | ... |
| 106 | 5 Libræ ... ... | June | 9 | R | 14 | 38 | 21·39 | ... | 104 | 52 | 32·9 | ... |
| 107 | 36 Bootis ε. ... ... | June | 6 | M | 14 | 38 | 57·58 | ... | 62 | 20 | 34·4 | ... |
| | ... ... ... | „ | 10 | R | | 38 | 57·63 | .. | | 20 | 31·7 | ... |
| | ... ... ... | „ | 19 | S | | 38 | 57·59 | .. | | 20 | 33·6 | .. |
| 108 | 9 Libræ α² ... .. | May | 31 | P | 14 | 43 | 14·70 | ... | 105 | 27 | 59·0 | .. |
| | ... .. .. | June | 7 | M | | 43 | 14·83 | 6 | | 27 | 56·7 | ... |
| 109 | 7 Ursæ Minoris β .. | June | 19 | S | 14 | 51 | 8·80 | ... | 15 | 16 | 51·9 | ... |
| | .. ... .. | July | 8 | S | | 51 | 8·43 | ... | | 16 | 50·1 | ... |

*Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1862. | | | No. of Wires. | Mean Polar Distance. 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ' | " | |
| 110 | 43 Bootis ψ ... ... | June | 2 | P | 14 | 58 | 31·97 | 6 | 62 | 30 | 46·1 | .. |
| | .. ... ... | „ | 3 | M | | 58 | 31·95 | 6 | | 30 | 46·7 | ... |
| | ... ... ... | „ | 4 | M | | 58 | 32·16 | 5 | | 30 | 46·2 | ... |
| 111 | 24 Libræ ι ... ... | June | 9 | R | 15 | 4 | 21·54 | 6 | 109 | 16 | 1·9 | ... |
| | ... ... ... | „ | 10 | R | | 4 | 21·50 | ... | | 16 | 1·3 | ... |
| 112 | 111 R. P. L. ... .. | June | 5 | M | 15 | 5 | 58·16 | 5 | 5 | 30 | 59·3 | ... |
| | | „ | 19 | S | | 5 | 58·05 | 5 | | 31 | 0·7 | ... |
| 113 | 27 Libræ β ... ... | May | 31 | P | 15 | 9 | 34·93 | ... | 98 | 52 | 18·7 | ... |
| | ... ... ... | June | 16 | S | | 9 | 34·81 | ... | | 52 | 16·1 | ... |
| | ... ... ... | „ | 21 | S | | 9 | 34·90 | ... | | 52 | 16·4 | .. |
| 114 | 32 Libræ δ¹ ... ... | June | 9 | R | 15 | 20 | 28·60 | 6 | 106 | 13 | 57·4 | ... |
| | ... ... ... | „ | 10 | R | | 20 | 28·69 | ... | | 13 | 57·4 | ... |
| 115 | 114 R.P.L. ... s.p. | Dec. | 2 | M | 15 | 23 | 16·62 | 1 | 2 | 14 | 37·9 | ... |
| 116 | 5 Coronæ Borealis α. | May | 31 | P | 15 | 28 | 50·84 | 6 | 62 | 49 | 9·1 | ... |
| | ... ... ... | June | 4 | M | | 28 | 50·72 | ... | | 49 | 10·0 | ... |
| | ... ... ... | „ | 12 | R | | 28 | 50·70 | ... | | 49 | 7·2 | ... |
| | ... ... .. | „ | 16 | S | | 28 | 50·88 | ... | | 49 | 7·4 | ... |
| | ... ... ... | „ | 21 | S | | 28 | 50·84 | ... | | 49 | 8·7 | ... |
| | ... ... ... | July | 4 | R | | 20 | 50·68 | ... | | 49 | 7·4 | ... |
| 117 | 24 Serpentis α ... | May | 31 | P | 15 | 37 | 28·38 | 6 | 83 | 8 | 17·6 | ... |
| | ... ... ... | July | 8 | S | | 37 | 28·11 | 6 | | 8 | 15·2 | ... |
| 118 | 115 R. P. L. ... ... | June | 5 | M | 15 | 49 | 0·87 | 5 | 4 | 43 | 35·0 | ... |
| 119 | 16 Ursæ Minoris ζ .. | July | 22 | M | 15 | 49 | 4·15 | ... | 11 | 46 | 58·0 | ... |
| 120 | 7 Scorpii δ ... ... | Jn'y | 8 | S | 15 | 52 | 10·41 | ... | 112 | 13 | 32·7 | ... |
| 121 | 8 Scorpii β¹ .. ... | June | 4 | M | 15 | 57 | 24·95 | ... | 109 | 25 | 29·6 | ... |
| | ... ... .. | „ | 9 | R | | 57 | 25·00 | ... | | 25 | 28·6 | ... |
| | ... ... .. | „ | 11 | R | | 57 | 25·01 | .. | | 25 | 29·1 | ... |
| | ... ... .. | „ | 19 | S | | 57 | 24·94 | 6 | | 25 | 29·8 | .. |

*Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1862. | | | No. of Wires. | Mean Polar Distance. 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 121 | 8 Scorpii β[1] ... ... | July | 4 | R | 15 | 57 | 25·04 | ... | 109 | 25 | 28·7 | ... |
| | ... ... ... | " | 8 | S | | 57 | 25·17 | 5 | | 25 | 29·5 | ... |
| | ... ... ... | " | 16 | R | | 57 | 25·04 | 5 | | 25 | 29·6 | ... |
| | ... .. ... | " | 18 | R | | 57 | 24·96 | ... | | 25 | 28·9 | ... |
| | ... ... ... | " | 23 | M | | 57 | 24·94 | ... | | 25 | 28·5 | ... |
| | .. ... ... | " | 24 | M | | 57 | 24·97 | ... | | 25 | 29·5 | ... |
| | ... ... ... | " | 25 | M | | 57 | 24·99 | ... | | 25 | 28·7 | ... |
| | ... ... ... | " | 26 | M | | 57 | 24·99 | ... | | 25 | 29·4 | ... |
| | ... ... ... | " | 28 | S | | 57 | 25·06 | 5 | | 25 | 29·3 | ... |
| 122 | 1 Ophiuchi δ. .. | June | 9 | R | 16 | 7 | 6·90 | ... | 93 | 20 | 13·0 | ... |
| 123 | 21 Scorpii α .. ... | June | 10 | R | 16 | 20 | 57·06 | 4 | 116 | 7 | 21·3 | ... |
| | ... ... ... | " | 12 | R | | 20 | 57·00 | ... | | 7 | 19·8 | ... |
| | ... ... ... | " | 13 | R | | 20 | 56·93 | ... | | 7 | 20·7 | ... |
| | ... ... ... | July | 15 | R | | 20 | 56·98 | ... | | 7 | 20·8 | ... |
| | ... ... ... | " | 18 | R | | 20 | 57·08 | ... | | 7 | 21·3 | .. |
| | ... ... ... | " | 26 | M | | 20 | 56·94 | ... | | 7 | 21·4 | ... |
| | ... ... ... | " | 30 | S | | 20 | 56·99 | ... | | 7 | 20·9 | ... |
| | ... ... ... | Aug. | 5 | M | | 20 | 57·03 | ... | | 7 | 19·0 | ... |
| 124 | S. Ophiuchi Var. 3 ... | Aug. | 2 | S | 16 | 26 | 18·98 | ... | 106 | 52 | 3·1 | ... |
| 125 | 40 Herculis 3 .. | July | 12 | S | 16 | 36 | 4·97 | ... | 58 | 8 | 45·1 | ... |
| | ... ... ... | " | 15 | R | | 36 | 5·09 | ... | | 8 | 43·9 | ... |
| | ... ... ... | " | 16 | R | | 36 | 5·07 | ... | | 8 | 44·5 | ... |
| | ... .. ... | " | 22 | M | | 36 | 5·10 | ... | | 8 | 44·1 | .. |
| | ... ... .. | " | 23 | M | | 36 | 5·04 | ... | | 8 | 43·6 | ... |
| | ... ... ... | " | 25 | M | | 36 | 5·15 | ... | | 8 | 43·7 | .. |
| | .. ... .. | " | 26 | M | | 36 | 5·08 | 4 | | 8 | 44·5 | ... |
| | ... ... .. | " | 28 | S | | 36 | 4·97 | ... | | 8 | 43·0 | ... |
| | ... ... .. | " | 30 | S | | 36 | 5·08 | ... | | 8 | 43·8 | .. |
| 126 | 27 Ophiuchi κ. .. | July | 3 | P | 16 | 51 | 8·33 | 6 | 80 | 24 | 27·2 | ... |
| | ... ... .. | " | 13 | S | | 51 | 8·20 | ... | | 24 | 28·1 | ... |
| | ... ... .. | " | 16 | R | | 51 | 8·22 | ... | | 24 | 26·7 | ... |
| | ... ... ... | " | 18 | R | | 51 | 8·23 | ... | | 24 | 27·8 | ... |
| | ... ... ... | " | 24 | M | | 51 | 8·23 | 5 | | 24 | 27·4 | ... |
| | ... ... ... | " | 28 | S | | 51 | 8·29 | .. | | 24 | 28·0 | ... |
| | ... ... ... | " | 29 | S | | 51 | 8·19 | ... | | 24 | 27·0 | ... |

*Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1862. | | | No. of Wires. | Mean Polar Distance. 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 126 | 27 Ophiuchi κ .. | Aug. | 1 | S | 16 | 51 | 8·08 | ... | 80 | 24 | 28·0 | ... |
| | ... ... ... | „ | 2 | S | | 51 | 8·17 | ... | | 24 | 28·4 | ... |
| 127 | R. Ophiuchi Var 2 ... | July | 28 | S | 16 | 59 | 50·78 | ... | 105 | 54 | 19·6 | ... |
| | | Aug. | 1 | S | | 59 | 50·42 | ... | | 54 | 20·3 | ... |
| | | „ | 2 | S | | 59 | 50·57 | ... | | 54 | 20·3 | .. |
| 128 | 22 Ursæ Min. ε. ...s.p. | Dec. | 8 | M | 17 | 0 | 14·63 | 3 | 7 | 44 | 28·3 | .. |
| | ... ... s.p. | „ | 9 | M | | 0 | 14·41 | 5 | | 44 | 31·2 | ... |
| 129 | 64 Herculis α Var 1... | July | 3 | P | 17 | 8 | 21·41 | ... | 75 | 26 | 58·3 | ... |
| | ... ... ... | „ | 12 | S | | 8 | 21·31 | ... | | 26 | 59·2 | ... |
| | ... ... ... | „ | 22 | M | | 8 | 21·26 | ... | | 26 | 58·6 | ... |
| | ... ... ... | „ | 29 | S | | 8 | 21·38 | ... | | 26 | 58·8 | ... |
| | ... ... ... | „ | 31 | S | | 8 | 21·20 | ... | | 26 | 58·2 | .. |
| 130 | 42 Ophiuchi θ ... | July | 3 | P | 17 | 13 | 31·92 | 6 | 114 | 51 | 28·3 | ... |
| | ... ... ... | „ | 8 | S | | 13 | 32·13 | ... | | 51 | 29·1 | ... |
| | ... ... ... | „ | 24 | M | | 13 | 32·17 | ... | | 51 | 29·3 | ... |
| | ... ... ... | „ | 25 | M | | 13 | 32·06 | ... | | 51 | 29·3 | .. |
| 131 | 45 Ophiuchi d ... | July | 8 | S | 17 | 18 | 32·59 | ... | 119 | 44 | 17·8 | ... |
| | ... ... ... | Aug. | 5 | M | | 18 | 32·71 | ... | | 44 | 16·3 | ... |
| 132 | 55 Ophiuchi α ... | June | 13 | R | 17 | 28 | 31·77 | ... | 77 | 20 | 14·0 | ... |
| | ... ... ... | July | 4 | R | | 28 | 31·67 | ... | | 20 | 12·6 | ... |
| | ... ... ... | „ | 19 | R | | 28 | 31·71 | ... | | 20 | 12·6 | ... |
| | ... ... ... | „ | 22 | M | | 28 | 31·83 | ... | | 20 | 12·5 | ... |
| | .. ... ... | „ | 23 | M | | 28 | 31·56 | 6 | | 20 | 13·4 | ... |
| | ... ... ... | „ | 26 | M | | 28 | 31·84 | ... | | 20 | 12·7 | ... |
| | ... ... ... | „ | 31 | S | | 28 | 31·77 | ... | | 20 | 12·9 | ... |
| | ... ... ... | Aug. | 2 | S | | 28 | 31·68 | ... | | 20 | 12·3 | ... |
| 133 | —Scorpii κ ... ... | July | 25 | M | 17 | 32 | 56·56 | ... | 128 | 57 | 16·7 | ... |
| | ... ... ... | „ | 29 | S | | 32 | 56·60 | 5 | | 57 | 16·5 | ... |
| | ... ... ... | „ | 31 | S | | 32 | 56·44 | ... | | 57 | 16·3 | ... |
| 134 | ... ... ... | July | 28 | S | 17 | 37 | 31·91 | 5 | 126 | 29 | 14·6 | ... |
| | | Aug. | 1 | S | | 37 | 31·65 | ... | | 29 | 14·9 | ... |

*Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension. 1862. | | | No. of Wires. | Mean Polar Distance. 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | | ° | ′ | ″ | |
| 135 | ... ... ... | Aug. 2 | S | 17 | 39 | 35·46 | ... | 127 | 14 | 31·4 | ... |
| 136 | 86 Herculis $\mu$ ... | June 21 | S | 17 | 41 | 3·57 | ... | 62 | 11 | 47·7 | ... |
| | ... ... ... | July 19 | R | | 41 | 3·47 | ... | | 11 | 48·5 | ... |
| | ... ... ... | " 22 | M | | 41 | 3·34 | ... | | 11 | 46·3 | ... |
| 137 | 8282 Taylor ... ... | July 25 | M | 17 | 47 | 59·31 | ... | 131 | 41 | 32·3 | 7·0 |
| | ... ... ... | " 29 | S | | 47 | 59·48 | ... | | 41 | 31·4 | ... |
| 138 | 7499 Lacaille ... | Aug. 1 | S | 17 | 48 | 6·97 | ... | 129 | 4 | 38·1 | ... |
| 139 | 7504 Lacaille ... | July 23 | M | 17 | 48 | 23·61 | ... | 129 | 6 | 45·2 | ... |
| | ... ... .. | Aug. 2 | S | | 48 | 23·75 | 5 | | 6 | 47·4 | ... |
| 140 | 33 Draconis $\gamma$ ... | June 21 | S | 17 | 53 | 24·35 | ... | 38 | 29 | 38·2 | .. |
| 141 | —Sagittarii $\gamma^1$ ... | Aug. 5 | M | 17 | 56 | 12·29 | ... | 119 | 34 | 55·1 | ... |
| 142 | 8355 Taylor ... ... | July 12 | S | 17 | 56 | 51·22 | ... | 133 | 25 | 37·6 | ... |
| | ... ... ... | " 28 | S | | 56 | 51·11 | ... | | 25 | 38·4 | ... |
| | ... ... ... | " 29 | S | | 56 | 51·17 | ... | | 25 | 38·7 | ... |
| 143 | ... ... ... | Aug. 2 | S | 18 | 1 | 5·15 | 6 | 131 | 43 | 37·7 | ... |
| | | " 16 | S | | 1 | 5·20 | ... | | 43 | 33·8 | ... |
| 144 | 13 Sagittarii $\mu$ ... | Sep. 3 | M | 18 | 5 | 30·59 | ... | 111 | 5 | 27·2 | ... |
| 145 | 7622 Lacaille ... | Aug. 16 | S | 18 | 5 | 53·38 | 4 | 133 | 12 | 18·2 | .. |
| 146 | 7644 Lacaille ... | July 16 | R | 18 | 8 | 48·12 | 5 | 132 | 20 | 3·0 | ... |
| 147 | 8461 Taylor ... ... | Aug. 16 | S | 18 | 14 | 16·50 | ... | 134 | 9 | 26·8 | ... |
| 148 | 22 Sagittarii $\lambda$ ... | Sep. 3 | M | 18 | 19 | 27·12 | ... | 115 | 29 | 37·1 | ... |
| 149 | ... ... ... | Aug. 16 | S | 18 | 22 | 42·21 | ... | 135 | 15 | 52·6 | ... |
| 150 | 3 Lyræ $\alpha$ ... ... | Aug. 20 | S | 18 | 32 | 15·68 | ... | 51 | 20 | 33·4 | ... |
| | ... ... ... | " 23 | S | | 32 | 15·79 | ... | | 20 | 33·8 | ... |

*Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1862. | | | No. of Wires. | Mean Polar Distance. 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 151 | ... ... ... | Aug. | 1 | S | 18 | 35 | 26·76 | ... | 136 | 44 | 13·4 | ... |
| | | „ | 16 | S | | 35 | 26·62 | ... | | 44 | 13·5 | ... |
| 152 | ... ... ... | Aug. | 22 | S | 18 | 35 | 30·84 | ... | 137 | 11 | 6·6 | 7·5 |
| 153 | R. Scuti Var 1 ... | Aug. | 13 | M | 18 | 40 | 6·79 | .. | 95 | 51 | 1·3 | ... |
| | ... ... ... | „ | 14 | M | | 40 | 6·73 | ... | | 51 | 0·5 | ... |
| 154 | 7872 Lacaille ... | Aug. | 22 | S | 18 | 42 | 11·14 | 5 | 136 | 45 | 9·1 | ... |
| 155 | 7878 Lacaille ... | Aug. | 16 | S | 18 | 42 | 44·45 | 4 | 136 | 44 | 45·1 | ... |
| 156 | 10 Lyræ β Var 1 ... | July | 29 | S | 18 | 44 | 59·01 | ... | 56 | 47 | 45·2 | ... |
| | ... ... ... | Aug. | 1 | S | | 44 | 59·12 | ... | | 47 | 44·3 | ... |
| | ... ... ... | „ | 2 | S | | 44 | 59·15 | ... | | 47 | 43·7 | ... |
| | ... ... .. | „ | 20 | S | | 44 | 59·12 | 4 | | 47 | 44·8 | ... |
| | ... ... ... | „ | 23 | S | | 44 | 59·06 | ... | | 47 | 43·3 | ... |
| 157 | 13 Lyræ Var 2 ... | Aug. | 1 | S | 18 | 51 | 8·07 | .. | 46 | 14 | 2·6 | ... |
| | ... ... ... | „ | 2 | S | | 51 | 7·97 | ... | | 14 | 3·1 | ... |
| | ... ... ... | „ | 20 | S | | 51 | 8·41 | ... | | 14 | 3·9 | ... |
| 158 | 17 Aquilæ 3 .. ... | July | 23 | M | 18 | 59 | 4·12 | ... | 76 | 20 | 19·6 | ... |
| | ... ... ... | Aug. | 13 | M | | 59 | 3·93 | ... | | 20 | 21·8 | ... |
| | ... ... ... | „ | 14 | M | | 59 | 4·04 | ... | | 20 | 21·1 | ... |
| | ... ... ... | „ | 21 | S | | 59 | 3·95 | 6 | | 20 | 21·3 | ... |
| | ... ... ... | „ | 23 | S | | 59 | 3·96 | ... | | 20 | 19·4 | ... |
| 159 | 41 Sagittarii π ... | Sep. | 3 | M | 19 | 1 | 33·07 | 3 | 111 | 14 | 22·0 | ... |
| 160 | ... ... ... | Aug. | 23 | S | 19 | 8 | 9·62 | 6 | 129 | 49 | 15·9 | 9·0 |
| 161 | ... ... ... | Aug. | 2 | S | 19 | 9 | 59·74 | ... | 123 | 31 | 8·8 | ... |
| | | „ | 13 | M | | 9 | 59·72 | ... | | 31 | 9·6 | ... |
| | | „ | 14 | M | | 9 | 59·74 | 6 | | 31 | 7·9 | ... |
| 162 | 25 Aquilæ ω ... .. | Aug. | 16 | S | 19 | 11 | 20·11 | ... | 78 | 39 | 3·3 | ... |
| | ... ... ... | „ | 21 | S | | 11 | 20·20 | ... | | 39 | 3·4 | ... |

*Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1862. | | | No. of Wires. | Mean Polar Distance. 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 163 | 44 Sagittarii $\rho^1$ ... | Sep. | 3 | M | 19 | 13 | 39·87 | ... | 108 | 6 | 13·0 | ... |
| 164 | ... ... ... | Aug. | 23 | S | 19 | 16 | 26·20 | ... | 129 | 53 | 0·4 | 7·5 |
| 165 | 30 Aquilæ $\delta$ ... ... | July | 29 | S | 19 | 18 | 32·33 | ... | 87 | 9 | 26·7 | ... |
| | ... ... ... | Aug. | 16 | S | | 18 | 32·30 | ... | | 9 | 26·7 | ... |
| | ... ... ... | ,, | 22 | S | | 18 | 32·36 | ... | | 9 | 26·8 | ... |
| 166 | ... ... ... | Aug. | 23 | S | 19 | 24 | 47·60 | ... | 129 | 56 | 11·3 | 8·5 |
| 167 | 51 Sagittarii $h^1$ ... | Sep. | 5 | M | 19 | 27 | 38·72 | ... | 115 | 1 | 4·1 | ... |
| 168 | 52 Sagittarii $h^2$ ... | Aug. | 13 | M | 19 | 28 | 18·17 | ... | 115 | 11 | 4·3 | ... |
| | ... ... ... | ,, | 14 | M | | 28 | 18·27 | ... | | 11 | 4·9 | ... |
| | ... ... ... | ,, | 16 | S | | 28 | 18·41 | ... | | 11 | 4·7 | ... |
| 169 | ... ... ... | Aug. | 22 | S | 19 | 34 | 15·31 | ... | 127 | 17 | 18·3 | ... |
| 170 | 50 Aquilæ $\gamma$ ... ... | July | 12 | S | 19 | 39 | 41·76 | ... | 79 | 43 | 14·8 | ... |
| | ... . ... | Sep. | 6 | M | | 39 | 41·74 | ... | | 43 | 14·4 | ... |
| 171 | ... ... ... | Aug. | 2 | S | 19 | 43 | 56·87 | ... | 122 | 19 | 35·3 | ... |
| | | ,, | 13 | M | | 43 | 56·84 | ... | | 19 | 35·8 | ... |
| 172 | 53 Aquilæ $\alpha$ ... | Aug. | 20 | S | 19 | 44 | 3·06 | 5 | 81 | 29 | 36·0 | ... |
| | ... ... ... | ,, | 22 | S | | 44 | 2·84 | ... | | 29 | 36·3 | ... |
| 173 | 60 Aquilæ $\beta$ ... | Aug. | 21 | S | 19 | 48 | 31·99 | ... | 83 | 56 | 7·5 | ... |
| | ... ... ... | ,, | 22 | S | | 48 | 32·05 | 5 | | 56 | 6·6 | ... |
| 174 | 9208 Taylor ... ... | July | 12 | S | 19 | 55 | 34·13 | ... | 122 | 26 | 25·3 | ... |
| | ... ... ... | ,, | 28 | S | | 55 | 34·13 | ... | | 26 | 24·9 | ... |
| | ... ... ... | Aug. | 1 | S | | 55 | 34·04 | ... | | 26 | 25·0 | ... |
| 175 | 5 Capricorni $\alpha^1$ ... | Sep. | 5 | M | 20 | 9 | 59·76 | ... | 102 | 55 | 54·8 | ... |
| 176 | 6 Capricorni $\alpha^2$ ... | Aug. | 1 | S | 20 | 10 | 23·73 | ... | 102 | 58 | 11·6 | ... |
| | ... ... ... | Sep. | 3 | M | | 10 | 23·63 | ... | | 58 | 11·1 | ... |
| | ... .. ... | ,, | 30 | M | | 10 | 23·62 | ... | | 58 | 12·5 | ... |

## *Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1862. | | | No. of Wires. | Mean Polar Distance. 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h | m. | s. | | ° | ′ | ″ | |
| 177 | 39095 Lalande ... | Aug. | 1 | S | 20 | 14 | 34·32 | ... | 106 | 15 | 51·3 | 8.0 |
| | ... ... ... | „ | 16 | S | | 14 | 34·03 | ... | | 15 | 50·9 | ... |
| | ... ... ... | „ | 20 | S | | 14 | 34·14 | ... | | 15 | 51·9 | ... |
| 178 | ... .. ... | Aug. | 23 | S | 20 | 16 | 43·30 | 4 | 121 | 12 | 10·2 | 8·5 |
| 179 | 11 Capricorni ρ ... | July | 12 | S | 20 | 20 | 59·12 | ... | 108 | 16 | 1·7 | ... |
| | ... ... ... | Aug. | 12 | M | | 20 | 58·99 | ... | | 16 | 2·6 | ... |
| | . ... ... | Sep. | 5 | M | | 20 | 59·02 | 6 | | 16 | 1·5 | .. |
| | ... ... ... | „ | 30 | M | | 20 | 59·02 | ... | | 16 | 2·0 | ... |
| 180 | ... ... ... | Aug. | 23 | S | 20 | 26 | 13·37 | 5 | 121 | 13 | 3·2 | 8·0 |
| 181 | 14 Capricorni τ² .. | Aug. | 1 | S | 20 | 31 | 33·07 | 5 | 105 | 26 | 10·2 | ... |
| 182 | ... ... ... | Aug. | 23 | S | 20 | 35 | 48·56 | 6 | 123 | 58 | 55·6 | 8·0 |
| 183 | 50 Cygni α ... | Aug. | 9 | M | 20 | 36 | 43·80 | ... | 45 | 13 | 40·7 | ... |
| | ... ... ... | „ | 12 | M | | 36 | 43·60 | ... | | 12 | 41·6 | ... |
| | ... ... ... | „ | 13 | M | | 36 | 43·65 | ... | | 12 | 41·5 | ... |
| | ... ... ... | „ | 14 | M | | 36 | 43·41 | ... | | 12 | 41·9 | ... |
| | ... ... ... | Sep. | 3 | M | | 36 | 43·57 | 5 | | 12 | 42·0 | ... |
| 184 | . ... ... | Aug. | 23 | S | 20 | 43 | 29·30 | ... | 124 | 58 | 32·5 | 8·0 |
| 185 | 32 Vulpeculæ ... | Aug. | 12 | M | 20 | 48 | 40·74 | ... | 62 | 27 | 57·2 | ... |
| | ... ... ... | „ | 18 | S | | 48 | 40·75 | ... | | 27 | 56·3 | ... |
| 186 | ... .. ... | Aug | 23 | S | 20 | 51 | 28·75 | ... | 126 | 38 | 27·9 | 8·0 |
| 187 | 23 Capricorni θ ... | Aug. | 9 | M | 20 | 58 | 11·12 | ... | 107 | 46 | 42·4 | ... |
| 188 | .. ... ... | Aug. | 23 | S | 20 | 59 | 34·54 | ... | 129 | 1 | 55·3 | 8·5 |
| 189 | 13 Aquarii ν ... | July | 12 | S | 21 | 2 | 4·37 | ... | 101 | 55 | 42·9 | ... |
| | ... ... ... | Aug. | 20 | S | | 2 | 4·49 | ... | | 55 | 42·2 | ... |
| | ... ... ... | Oct. | 3 | S | | 2 | 4·36 | ... | | 55 | 41·8 | ... |
| 190 | 61 Cygni 3 ... .. | Aug. | 18 | S | 21 | 7 | 3·75 | 5 | 60 | 20 | 15·7 | ... |
| | ... ... ... | Sep. | 29 | M | | 7 | 3·77 | ... | | 20 | 16·2 | ... |
| | ... ... ... | „ | 30 | M | | 7 | 3·80 | ... | | 20 | 16·3 | ... |

*Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension 1862. | | | No. of Wires. | Mean Polar Distance. 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 190 | 64 Cygni ζ ... ... | Oct. | 1 | S | 21 | 7 | 3·72 | ... | 60 | 20 | 16·1 | ... |
| | ... ... ... | „ | 4 | S | | 7 | 3·64 | ... | | 20 | 14·4 | ... |
| 191 | ... ... ... | Aug. | 23 | S | 21 | 10 | 53·55 | ... | 129 | 32 | 25·0 | 8·0 |
| 192 | 22 Aquarii β ... ... | Sep. | 29 | M | 21 | 24 | 17·55 | ... | 96 | 10 | 35·9 | ... |
| | ... ... .. | „ | 30 | M | | 24 | 17·36 | ... | | 10 | 37·1 | ... |
| | ... ... ... | Oct. | 1 | S | | 24 | 17·61 | ... | | 10 | 36·3 | ... |
| | ... ... ... | „ | 2 | S | | 24 | 17·58 | ... | | 10 | 35·6 | ... |
| 193 | ... ... ... | July | 12 | S | 21 | 29 | 47·10 | ... | 98 | 25 | 58·7 | ... |
| | ... ... ... | Aug. | 18 | S | | 29 | 47·26 | ... | | 26 | 0·0 | ... |
| 194 | 23 Aquarii ξ ... ... | Aug. | 14 | M | 21 | 30 | 23·90 | 5 | 98 | 28 | 17·0 | ... |
| | ... ... ... | Sep. | 5 | M | | 30 | 24·26 | ... | | 28 | 15·3 | ... |
| 195 | 8 Pegasi ε ... ... | Aug. | 18 | S | 21 | 37 | 24·45 | ... | 80 | 45 | 21·6 | ... |
| | ... ... ... | Oct. | 1 | S | | 37 | 24·35 | ... | | 45 | 21·6 | ... |
| | ... ... ... | „ | 3 | S | | 37 | 24·49 | ... | | 45 | 22·1 | ... |
| | ... ... ... | „ | 4 | S | | 37 | 24·46 | ... | | 45 | 21·5 | ... |
| | ... ... ... | „ | 6 | S | | 37 | 24·39 | ... | | 45 | 20·5 | ... |
| 196 | 49 Capricorni δ ... | Sep. | 5 | M | 21 | 39 | 25·10 | ... | 106 | 45 | 5·5 | ... |
| 197 | 16 Pegasi ... ... | Sep. | 22 | S | 21 | 46 | 47·15 | ... | 64 | 43 | 23·4 | ... |
| | ... ... ... | „ | 29 | M | | 46 | 46·94 | ... | | 43 | 23·1 | ... |
| | ... ... ... | Oct. | 6 | S | | 46 | 48·06 | ... | | 43 | 19·6 | ... |
| | ... ... ... | „ | 11 | S | | 46 | 47·23 | ... | | 43 | 22·0 | ... |
| | ... ... ... | „ | 13 | S | | 46 | 47·12 | ... | | 43 | 21·8 | ... |
| | ... ... ... | „ | 14 | S | | 46 | 47·15 | ... | | 43 | 23·2 | ... |
| 198 | 31 Aquarii ο ... ... | Oct. | 4 | S | 21 | 56 | 10·36 | ... | 92 | 49 | 12·8 | ... |
| 199 | 34 Aquarii α ... ... | Aug. | 9 | M | 21 | 58 | 41·63 | ... | 90 | 59 | 19·4 | ... |
| | ... ... .. | Sep. | 17 | M | | 58 | 41·46 | ... | | 59 | 20·4 | ... |
| | ... ... ... | „ | 24 | M | | 58 | 41·57 | ... | | 59 | 20·6 | ... |
| | ... ... .. | „ | 26 | M | | 58 | 41·61 | 5 | | 59 | 22·2 | ... |
| | ... ... .. | „ | 27 | M | | 58 | 41·68 | ... | | 59 | 20·9 | ... |
| | ... ... ... | Oct. | 7 | S | | 58 | 41·55 | ... | | 59 | 18·8 | ... |
| | ... ... ... | „ | 14 | S | | 58 | 41·53 | ... | | 59 | 20·2 | ... |

*Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1862. | | | No. of Wires. | Mean Polar Distance. 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ' | " | |
| 200 | 43 Aquarii θ ... .. | Aug. | 25 | S | 22 | 9 | 33·14 | ... | 98 | 28 | 7·9 | ... |
| | ... ... ... | Sep. | 12 | R | | 9 | 32·81 | 5 | | 28 | 7·3 | ... |
| | ... ... ... | Oct. | 3 | S | | 9 | 32·90 | ... | | 28 | 8·6 | ... |
| | ... ... ... | " | 17 | R | | 9 | 32·94 | ... | | 28 | 10·3 | ... |
| | ... ... ... | Nov. | 14 | M | | 9 | 32·95 | ... | | 28 | 7·5 | ... |
| 201 | 55 Aquarii ζ... ... | Nov. | 1 | M | 22 | 21 | 43·40 | ... | 90 | 43 | 28·4 | ... |
| 202 | ... ... ... | Aug. | 18 | S | 22 | 21 | 45·17 | ... | 100 | 38 | 23·6 | ... |
| | ... ... ... | " | 25 | S | | 21 | 44·88 | ... | | 38 | 23·2 | ... |
| 203 | 150 R. P. L. ... ... | Sep. | 6 | R | 22 | 23 | 45·81 | 5 | 4 | 35 | 18·1 | ... |
| | ... ... ... | " | 30 | M | | 23 | 45·86 | 7 | | 35 | 20·5 | ... |
| | ... ... ... | Oct. | 2 | S | | 23 | 45·44 | 5 | | 35 | 18·6 | ... |
| | ... ... ... | " | 7 | S | | 23 | 45·19 | 5 | | 35 | 17·4 | ... |
| | ... ... ... | " | 13 | S | | 23 | 46·07 | 3 | | 35 | 19·3 | ... |
| | ... ... .. | " | 15 | S | | 23 | 45·54 | 3 | | 35 | 20·4 | ... |
| | ... ... ... | " | 16 | R | | 23 | 45·75 | 3 | | 35 | 19·2 | ... |
| | ... ... ... | Nov. | 13 | M | | 23 | 45·69 | 3 | | 35 | 18·9 | ... |
| 204 | 62 Aquarii η ... ... | Aug. | 27 | S | 22 | 28 | 15·83 | 5 | 90 | 49 | 39·3 | ... |
| | ... ... ... | Sep. | 8 | R | | 28 | 15·84 | 5 | | 49 | 39·7 | ... |
| | ... ... ... | " | 17 | M | | 28 | 15·84 | ... | | 49 | 40·2 | ... |
| | ... ... ... | " | 23 | M | | 28 | 15·88 | ... | | 49 | 41·7 | ... |
| | ... ... ... | " | 24 | M | | 28 | 15·87 | ... | | 49 | 40·5 | ... |
| | ... ... ... | " | 26 | M | | 28 | 15·87 | ... | | 49 | 40·9 | ... |
| | ... ... ... | " | 27 | M | | 28 | 15·86 | ... | | 49 | 42·0 | ... |
| | ... ... ... | Oct. | 3 | S | | 28 | 15·81 | ... | | 49 | 39·8 | ... |
| | ... ... ... | " | 4 | S | | 28 | 15·91 | ... | | 49 | 40·2 | ... |
| | ... ... ... | " | 17 | R | | 28 | 15·83 | ... | | 49 | 40·5 | ... |
| | ... ... ... | " | 18 | R | | 28 | 15·81 | ... | | 49 | 40·2 | ... |
| | ... ... ... | " | 21 | R | | 28 | 15·87 | ... | | 49 | 40·6 | ... |
| | ... ... .. | " | 23 | R | | 28 | 15·80 | ... | | 49 | 40·2 | ... |
| | ... ... .. | Nov. | 1 | M | | 28 | 15·83 | ... | | 49 | 40·4 | ... |
| | ... ... ... | " | 14 | M | | 28 | 15·87 | ... | | 49 | 40·1 | ... |
| | ... ... ... | " | 15 | M | | 28 | 15·84 | ... | | 49 | 38·6 | ... |
| 205 | 153 R. P. L.... .. | Nov. | 3 | M | 22 | 29 | 50·43 | 3 | 2 | 37 | 14·7 | ... |
| | ... ... .. | " | 4 | M | | 29 | 50·33 | 3 | | 37 | 13·8 | ... |

## *Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1862. | | | No. of Wires. | Mean Polar Distance. 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 205 | 153 R. P. L. ... ... | Nov. | 5 | M | 22 | 29 | 50·40 | 3 | 2 | 37 | 15·4 | ... |
| | ... ... ... | „ | 6 | M | | 29 | 50·70 | 2 | | 37 | 14·6 | ... |
| | ... ... ... | „ | 11 | M | | 29 | 50·96 | 3 | | 37 | 14·1 | ... |
| 206 | 42 Pegasi ζ ... ... | Aug. | 25 | S | 22 | 34 | 34·76 | ... | 79 | 53 | 15·8 | ... |
| | ... ... ... | „ | 27 | S | | 34 | 34·54 | ... | | 53 | 16·6 | ... |
| | ... ... ... | Sep. | 16 | M | | 34 | 34·69 | ... | | 53 | 16·5 | ... |
| | ... ... ... | „ | 27 | M | | 34 | 34·75 | ... | | 53 | 17.7 | ... |
| | ... ... ... | Oct. | 7 | S | | 34 | 34·90 | ... | | 53 | 15·0 | ... |
| | ... ... ... | „ | 11 | S | | 34 | 34·60 | ... | | 53 | 17·7 | ... |
| | ... ... ... | „ | 13 | S | | 34 | 34·84 | 5 | | 53 | 16·8 | ... |
| | ... ... ... | „ | 15 | S | | 34 | 34·69 | ... | | 53 | 17·5 | ... |
| | ... ... ... | „ | 16 | R | | 34 | 34·75 | ... | | 53 | 17·6 | ... |
| | ... ... ... | Nov. | 15 | M | | 34 | 34·77 | ... | | 53 | 15·0 | ... |
| 207 | XXII. 844 W. B. E ... | Oct. | 17 | R | 22 | 40 | 28·04 | ... | 87 | 40 | 19·8 | 7·5 |
| 208 | 24 Piscis Australis α | Sep. | 10 | R | 22 | 50 | 1·15 | 5 | 120 | 21 | 11·1 | ... |
| | ... ... ... | „ | 16 | M | | 50 | 0·99 | ... | | 21 | 9·5 | ... |
| | ... ... ... | „ | 17 | M | | 50 | 1·13 | ... | | 21 | 11·4 | ... |
| | ... ... ... | „ | 23 | M | | 50 | 1·00 | ... | | 21 | 10·8 | ... |
| | ... ... ... | „ | 27 | M | | 50 | 1·01 | ... | | 21 | 11·2 | ... |
| | ... ... ... | Oct. | 2 | S | | 50 | 0·94 | 6 | | 21 | 9·0 | ... |
| | ... ... ... | „ | 15 | S | | 50 | 0·94 | ... | | 21 | 9·3 | ... |
| | ... ... ... | „ | 16 | R | | 50 | 0·98 | ... | | 21 | 10·2 | ... |
| | ... ... ... | „ | 18 | R | | 50 | 1·02 | ... | | 21 | 10·4 | ... |
| | ... ... .. | „ | 23 | R | | 50 | 1·04 | .. | | 21 | 10·3 | ... |
| | ... ... ... | „ | 24 | R | | 50 | 1·03 | ... | | 21 | 9·7 | ... |
| | ... ... ... | „ | 25 | R | | 50 | 0·97 | ... | | 21 | 9·6 | ... |
| | ... ... ... | Nov. | 6 | M | | 50 | 1·06 | ... | | 21 | 9·0 | ... |
| 209 | ... ... ... | Sep. | 24 | M | 22 | 51 | 44·47 | ... | 85 | 27 | 8·7 | ... |
| 210 | 4 Piscium β ... ... | Sep. | 8 | R | 22 | 56 | 51·24 | ... | 86 | 55 | 19·8 | ... |
| | ... ... ... | Oct. | 4 | S | | 56 | 51·08 | ... | | 55 | 20·2 | ... |
| 211 | 53 Pegasi β ... ... | Nov. | 7 | M | 22 | 57 | 5·33 | ... | 62 | 39 | 53·5 | ... |
| 212 | 54 Pegasi α ... .. | Aug. | 25 | S | 22 | 57 | 53·00 | ... | 75 | 32 | 11·2 | ... |
| | ... ... .. | „ | 26 | S | | 57 | 53·26 | ... | | 32 | 10·5 | ... |

*Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1862. | | | No. of Wires. | Mean Polar Distance. 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 212 | 54 Pegasi α ... ... | Aug. | 27 | S | 22 | 57 | 53·41 | ... | 75 | 32 | 11·4 | ... |
| | ... ... ... | Sep. | 22 | S | | 57 | 53·34 | ... | | 32 | 14·0 | ... |
| | ... ... ... | „ | 23 | M | | 57 | 53·17 | ... | | 32 | 14·3 | ... |
| | ... ... ... | „ | 26 | M | | 57 | 53·28 | ... | | 32 | 13·4 | ... |
| | ... ... ... | Oct. | 2 | S | | 57 | 53·20 | ... | | 32 | 11·5 | ... |
| | ... ... ... | „ | 13 | S | | 57 | 53·13 | ... | | 32 | 12·2 | ... |
| | ... ... ... | „ | 14 | S | | 57 | 53·26 | 5 | | 32 | 12·9 | ... |
| | ... ... ... | „ | 15 | S | | 57 | 53·33 | ... | | 32 | 12·7 | ... |
| | ... ... ... | „ | 16 | R | | 57 | 53·26 | ... | | 32 | 12·2 | ... |
| | ... ... ... | „ | 17 | R | | 57 | 53·25 | ... | | 32 | 13·2 | ... |
| | ... ... ... | „ | 18 | R | | 57 | 53·26 | ... | | 32 | 12·9 | ... |
| | ... ... ... | „ | 20 | R | | 57 | 53·29 | ... | | 32 | 13·3 | ... |
| | ... ... ... | „ | 24 | R | | 57 | 53·23 | 5 | | 32 | 12·4 | ... |
| | ... ... ... | „ | 25 | R | | 57 | 53·29 | ... | | 32 | 11·5 | .. |
| 213 | 6 Piscium γ ... ... | Sep. | 6 | R | 23 | 10 | 0·68 | ... | 87 | 28 | 16·7 | ... |
| | ... ... ... | „ | 8 | R | | 10 | 0·67 | 4 | | 28 | 15·4 | ... |
| | ... ... ... | „ | 9 | R | | 10 | 0·71 | ... | | 28 | 16·5 | ... |
| | ... ... ... | „ | 18 | M | | 10 | 0·64 | ... | | 28 | 15·7 | ... |
| | ... ... ... | „ | 20 | M | | 10 | 0·53 | 4 | | 28 | 16·7 | ... |
| | ... ... ... | „ | 24 | M | | 10 | 0·68 | ... | | 28 | 16·6 | .. |
| | ... ... ... | „ | 26 | M | | 10 | 0·62 | 2 | | 28 | 17·6 | ... |
| | ... ... ... | „ | 27 | M | | 10 | 0·53 | ... | | 28 | 17·3 | ... |
| | ... ... ... | Oct. | 7 | S | | 10 | 0·59 | ... | | 28 | 14·8 | ... |
| | ... ... ... | „ | 20 | R | | 10 | 0·67 | 6 | | 28 | 16·6 | ... |
| | ... ... ... | „ | 28 | R | | 10 | 0·68 | ... | | 28 | 15·2 | ... |
| | ... ... ... | Nov. | 1 | M | | 10 | 0·60 | ... | | 28 | 15·8 | ... |
| | ... ... ... | „ | 5 | M | | 10 | 0·67 | ... | | 28 | 15·9 | ... |
| | ... ... ... | „ | 11 | M | | 10 | 0·65 | ... | | 28 | 15·6 | ... |
| | ... ... ... | „ | 12 | M | | 10 | 0·67 | ... | | 28 | 16·7 | ... |
| | ... ... ... | „ | 13 | M | | 10 | 0·70 | ... | | 28 | 16·9 | ... |
| | ... ... ... | „ | 14 | M | | 10 | 0·71 | ... | | 28 | 15·2 | ... |
| | ... ... ... | „ | 15 | M | | 10 | 0·65 | ... | | 28 | 15·5 | ... |
| 214 | ... ... ... | Oct. | 13 | S | 23 | 10 | 59·17 | 5 | 127 | 25 | 13·4 | 9·0 |
| 215 | ... ... ... | Oct. | 6 | S | 23 | 11 | 30·98 | ... | 129 | 58 | 31·4 | 8·0 |
| 216 | ... .. .. | Oct. | 14 | S | 23 | 12 | 6·41 | .. | 127 | 25 | 28·9 | 8·0 |

*Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1862. | | | No. of Wires. | Mean Polar Distance. 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 217 | 8 Piscium κ ... ... | Sep. | 5 | M | 23 | 19 | 51·54 | ... | 89 | 29 | 58·8 | ... |
| | ... ... ... | „ | 6 | R | | 19 | 51·50 | ... | | 29 | 58·6 | ... |
| | ... ... ... | „ | 16 | M | | 19 | 51·51 | ... | | 29 | 58·6 | ... |
| | ... ... ... | „ | 18 | M | | 19 | 51·11 | 2 | | 29 | 59·1 | ... |
| | ... ... ... | Oct. | 20 | R | | 19 | 51·47 | ... | | 29 | 58·9 | ... |
| | ... ... ... | „ | 25 | R | | 19 | 51·50 | ... | | 29 | 58·2 | ... |
| | ... ... ... | Nov. | 1 | M | | 19 | 51·46 | ... | | 29 | 58·6 | ... |
| | ... ... ... | „ | 3 | M | | 19 | 51·50 | ... | | 29 | 58·9 | ... |
| | ... ... ... | „ | 5 | M | | 19 | 51·42 | ... | | 29 | 58·8 | ... |
| | ... ... ... | „ | 7 | M | | 19 | 51·52 | ... | | 29 | 57·9 | ... |
| | ... ... ... | „ | 14 | M | | 19 | 51·39 | ... | | 29 | 58·8 | ... |
| | ... ... ... | „ | 15 | M | | 19 | 51·40 | ... | | 29 | 56·9 | ... |
| 218 | 10 Piscium θ... ... | Aug. | 12 | M | 23 | 20 | 58·00 | ... | 84 | 22 | 42·9 | ... |
| 219 | 158 R. P. L. ... ... | Sep. | 30 | M | 23 | 27 | 49·73 | 7 | 3 | 27 | 15·3 | ... |
| | ... ... ... | Oct. | 28 | R | | 27 | 50·79 | 3 | | 27 | 12·7 | ... |
| 220 | 17 Piscium ι ... ... | Aug. | 12 | M | 23 | 32 | 51·15 | ... | 85 | 7 | 17·2 | ... |
| | ... ... ... | Sep. | 18 | M | | 32 | 51·06 | ... | | 7 | 15·9 | ... |
| | ... ... ... | Oct. | 6 | S | | 32 | 51·26 | ... | | 7 | 16·1 | ... |
| | ... ... ... | „ | 27 | R | | 32 | 51·07 | ... | | 7 | 16·7 | ... |
| | ... ... ... | „ | 28 | R | | 32 | 51·16 | ... | | 7 | 18·4 | ... |
| | ... ... ... | Nov. | 3 | M | | 32 | 51·19 | ... | | 7 | 16·3 | ... |
| | ... ... ... | „ | 4 | M | | 32 | 51·15 | ... | | 7 | 16·4 | ... |
| | ... ... ... | „ | 6 | M | | 32 | 51·20 | ... | | 7 | 16·2 | ... |
| | ... ... ... | „ | 7 | M | | 32 | 51·21 | ... | | 7 | 15·7 | ... |
| | ... ... ... | Dec. | 1 | M | | 32 | 51·15 | ... | | 7 | 17·1 | ... |
| 221 | 9583 Lacaille ... | Nov. | 5 | M | 23 | 38 | 43·99 | 5 | 128 | 44 | 33·2 | 8·0 |
| 222 | ... ... ... | Oct. | 3 | S | 23 | 40 | 57·87 | 5 | 128 | 47 | 15·4 | 5·5 |
| 223 | — Sculptoris δ ... | Sep. | 6 | R | 23 | 41 | 43·98 | ... | 118 | 53 | 35·3 | ... |
| | ... ... ... | „ | 8 | R | | 41 | 43·89 | ... | | 53 | 36·7 | ... |
| | ... ... ... | Oct. | 21 | R | | 41 | 43·91 | ... | | 53 | 36·9 | ... |
| | ... ... ... | „ | 23 | R | | 41 | 43·92 | ... | | 53 | 35·8 | ... |
| | ... ... ... | „ | 28 | R | | 41 | 43·89 | ... | | 53 | 35·3 | ... |
| | ... ... ... | Nov. | 4 | M | | 41 | 43·96 | ... | | 53 | 36·4 | ... |
| | ... ... ... | „ | 7 | M | | 41 | 43·89 | ... | | 53 | 36·0 | ... |

*Separate Results of Madras Meridian Circle Observations in 1862.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1862. | | | No. of Wires. | Mean Polar Distance. 1862. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 224 | ... ... ... | Oct. | 27 | R | 23 | 41 | 51·93 | ... | 142 | 5 | 4·4 | 8·3 |
| 225 | R Cassiopeæ Var. 3... | Oct. | 28 | R | 23 | 51 | 24·51 | ... | 39 | 22 | 49·6 | 6·5 |
| | ... ... ... | Nov. | 5 | M | | 51 | 24·88 | ... | | 22 | 48·0 | 6·0 |
| 226 | ... ... ... | Oct. | 27 | R | 23 | 51 | 52·94 | 4 | 143 | 16 | 38·8 | 9·5 |
| 227 | 28 Piscium ω ... | Sep. | 8 | R | 23 | 52 | 13·51 | ... | 83 | 54 | 2·5 | ... |
| | ... ... ... | „ | 9 | R | | 52 | 13·58 | 6 | | 54 | 3·6 | ... |
| | ... ... ... | Oct. | 8 | S | | 52 | 13·56 | ... | | 54 | 0·4 | ... |
| | ... ... ... | „ | 21 | R | | 52 | 13·55 | ... | | 54 | 2·6 | ... |
| | ... ... ... | Nov. | 1 | M | | 52 | 13·54 | ... | | 54 | 2·4 | ... |
| | ... ... ... | „ | 3 | M | | 52 | 13·56 | ... | | 54 | 1·9 | .. |
| | ... ... ... | „ | 6 | M | | 52 | 13·50 | 5 | | 54 | 2·0 | ... |
| | ... ... ... | „ | 11 | M | | 52 | 13·56 | ... | | 54 | 1·4 | ... |
| | ... ... ... | „ | 13 | M | | 52 | 13·55 | ... | | 54 | 2·9 | ... |

# MEAN POSITIONS OF STARS

OBSERVED WITH THE

# MADRAS MERIDIAN CIRCLE

IN THE YEAR

1862

REDUCED TO JANUARY 1. OF THAT YEAR.

*Mean Positions of Stars for 1862 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 1 | 21 Andromedæ α ... ... | 2·0 | ... | 0 | 1 | 15·53 | 61 | 40 | 18·5 | 4 | 0·71 |
| 2 | 47374 Lalande ... .. | 7·0 | ... | 0 | 2 | 51·10 | 93 | 19 | 45·5 | 4 | 0·81 |
| 3 | 88 Pegasi γ ... ... | 2·7 | ... | 0 | 6 | 7·92 | 75 | 35 | 2·1 | 2 | 0·81 |
| 4 | 48 Taylor ... ... ... | 6·5 | ... | 0 | 10 | 42·52 | 89 | 4 | 43·7 | 18 | 0·78 |
| 5 | 41 Piscium d ... ... | 6·0 | ... | 0 | 13 | 29·88 | 82 | 34 | 34·3 | 5 | 0·73 |
| 6 | 44 Piscium ... ... | 6·0 | ... | 0 | 18 | 19·73 | 88 | 40 | 29·2 | 11 | 0·77 |
| 7 | 12 Ceti ... ... ... | 5·7 | ... | 0 | 22 | 59·76 | 94 | 43 | 13·7 | 5 | 0·82 |
| 8 | 670 Lalande ... ... | 7·0 | 2 | 0 | 23 | 3·04 | 85 | 54 | 13·7 | 12 | 0·75 |
| 9 | ... ... ... ... | 9·0 | 3 | 0 | 28 | 47·55 | 89 | 8 | 14·0 | 3 | 0·87 |
| 10 | 15 Ceti ... ... ... | 7·5 | ... | 0 | 31 | 1·16 | 91 | 15 | 47·0 | 4 | 0·75 |
| 11 | 1097 Lalande ... ... | 8·0 | 4 | 0 | 34 | 29·73 | 89 | 0 | 35·8 | 4 | 0·87 |
| 12 | 1123 Lalande ... ... | 8·5 | 1 | 0 | 35 | 35·78 | 89 | 3 | 40·8 | 2 | 0·89 |
| 13 | 16 Ceti β ... ... ... | 2·0 | ... | 0 | 36 | 39·58 | 108 | 44 | 40·5 | 5 | 0·77 |
| 14 | 1198 Lalande ... ... | 8·5 | 1 | 0 | 38 | 0·50 | 88 | 56 | 56·2 | 1 | 0·85 |
| 15 | 60 Piscium ... ... | 6·5 | ... | 0 | 40 | 15·45 | 84 | 0 | 46·7 | 4 | 0·75 |
| 16 | 235 Taylor ... ... | 6·5 | ... | 0 | 41 | 8·82 | 85 | 25 | 47·2 | 4 | 0·82 |
| 17 | 63 Piscium δ ... ... | 4·9 | ... | 0 | 41 | 31·47 | 83 | 10 | 0·2 | 11 | 0·73 |
| 18 | ... ... ... ... | 9·2 | 3 | 0 | 41 | 33·94 | 89 | 7 | 14·5 | 3 | 0·85 |
| 19 | 20 Ceti ... ... ... | 5·3 | ... | 0 | 45 | 57·31 | 91 | 53 | 40·5 | 14 | 0·74 |
| 20 | 0.806 W. B. E. ... ... | 10·0 | 2 | 0 | 46 | 33·72 | 88 | 50 | 25·2 | 3 | 0·88 |
| 21 | 2 Ursæ Minoris ... ... | 4·4 | ... | 0 | 50 | 30·17 | 4 | 29 | 9·4 | 1 | 0·69 |
| 22 | 1638 Lalande ... ... | 7·6 | 3 | 0 | 50 | 34·36 | 88 | 57 | 43·7 | 3 | 0·84 |
| 23 | 1639 Lalande ... ... | 8·5 | 2 | 0 | 50 | 36·18 | 88 | 30 | 12·9 | 3 | 0·86 |
| 24 | 1784 Lalande ... ... | 8·0 | 2 | 0 | 54 | 52·79 | 88 | 13 | 7·7 | 3 | 0·86 |
| 25 | 71 Piscium ε ... ... | 4·6 | ... | 0 | 55 | 47·00 | 82 | 51 | 13·0 | 4 | 0·72 |
| 26 | 26 Ceti ... ... ... | 6·0 | ... | 0 | 56 | 42·92 | 89 | 22 | 26·3 | 16 | 0·75 |
| 27 | 1879 Lalande ... ... | 7·6 | 3 | 0 | 57 | 37·75 | 88 | 25 | 33·9 | 3 | 0·84 |
| 28 | 0.1031 W. B. E. ... ... | 9·0 | 3 | 0 | 59 | 1·78 | 88 | 6 | 27·7 | 3 | 0·89 |
| 29 | 29 Ceti ... ... ... | 7·0 | 1 | 1 | 0 | 52·74 | 88 | 43 | 46·6 | 2 | 0·92 |
| 30 | 80 Piscium e ... ... | 5·8 | ... | 1 | 1 | 15·77 | 85 | 4 | 52·6 | 17 | 0·72 |
| 31 | 1.15 W. B. E. ... ... | 9·0 | 1 | 1 | 2 | 53·51 | 87 | 30 | 17·6 | 1 | 0·86 |
| 32 | 2089 Lalande ... ... | 8·4 | 3 | 1 | 3 | 21·21 | 88 | 10 | 53·2 | 3 | 0·85 |
| 33 | 33 Ceti ... ... .. | 6·3 | ... | 1 | 3 | 27·56 | 88 | 17 | 23·6 | 3 | 0·54 |
| 34 | 1.101 W. B. E. ... ... | 9·0 | 3 | 1 | 7 | 30·67 | 87 | 54 | 36·7 | 3 | 0·86 |
| 35 | ... ... ... .. | 10·0 | 2 | 1 | 9 | 9·95 | 87 | 42 | 42·8 | 3 | 0·86 |

1.—Alpherat ... ... ... ... ... 3.—Algenib ... ... ... ... .

9, 11, 12, 14, 18, 20, 22, 23, 24, 27, 28, 31, 32, 33, 34, 35. Comparison Stars used with Mars in opposition, for investigation of the Constant of Solar Parallax.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 1 | 21 Andromedæ α .. | + 3·0760 | + 0·0182 | + 0·009 | − 20·056 | + 0·013 | + 0·15 | 4 |
| 2 | 47374 Lalande ... | + 3·0711 | + 0·0004 | ... | − 20·053 | + 0·015 | ... | .. |
| 3 | 88 Pegasi γ ... ... | + 3·0811 | + 0·0100 | 0·000 | − 20·049 | + 0·022 | + 0·02 | 20 |
| 4 | 48 Taylor ... ... | + 3·0730 | + 0·0030 | ... | − 20·034 | + 0·030 | ... | 57 |
| 5 | 41 Piscium d ... | + 3·0823 | + 0·0066 | − 0·002 | − 20·020 | + 0·036 | − 0·01 | 66 |
| 6 | 44 Piscium ... ... | + 3·0743 | + 0·0035 | − 0·002 | − 19·991 | + 0·045 | + 0·02 | 87 |
| 7 | 12 Ceti ... ... | + 3·0609 | + 0·0008 | − 0·002 | − 19·955 | + 0·055 | + 0·01 | 112 |
| 8 | 670 Lalande ... .. | + 3·0816 | + 0·0054 | ... | − 19·954 | + 0·054 | ... | 113 |
| 9 | ... ... ... | + 3·0746 | + 0·0039 | ... | − 19·897 | + 0·065 | ... | ... |
| 10 | 15 Ceti ... ... | + 3·0681 | + 0·0029 | ... | − 19·872 | + 0·069 | ... | 163 |
| 11 | 1097 Lalande ... | + 3·0755 | + 0·0043 | ... | − 19·823 | + 0·076 | ... | ... |
| 12 | 1123 Lalande ... | + 3·0755 | + 0·0044 | ... | − 19·814 | + 0·079 | ... | ... |
| 13 | 16 Ceti β ... ... | + 2·9907 | − 0·0055 | + 0·013 | − 19·799 | + 0·080 | − 0·02 | 196 |
| 14 | 1198 Lalande .. | + 3·0761 | + 0·0045 | ... | − 19·779 | + 0·083 | ... | .. |
| 15 | 60 Piscium... ... | + 3·0966 | + 0·0063 | ... | − 19·746 | + 0·087 | ... | 216 |
| 16 | 235 Taylor ... ... | + 3·0912 | + 0·0066 | ... | − 19·733 | + 0·089 | ... | ... |
| 17 | 63 Piscium δ ... ... | + 3·1009 | + 0·0079 | + 0·003 | − 19·727 | + 0·090 | + 0·05 | 222 |
| 18 | ... ... ... | + 3·0758 | + 0·0047 | ... | − 19·727 | + 0·089 | ... | ... |
| 19 | 20 Ceti ... ... | + 3·0633 | + 0·0034 | − 0·004 | − 19·653 | + 0·097 | + 0·01 | 242 |
| 20 | 0 806 W. B. E. ... | + 3·0775 | + 0·0051 | ... | − 19·613 | + 0·099 | ... | ... |
| 21 | 2 Ursæ Minoris ... | + 6·7971 | + 1·2756 | + 0·065 | − 19·570 | + 0·225 | + 0·01 | 262 |
| 22 | 1638 Lalande ... | + 3·0773 | + 0·0052 | ... | − 19·569 | + 0·107 | ... | ... |
| 23 | 1639 Lalande ... | + 3·0789 | + 0·0054 | ... | − 19·568 | + 0·107 | ... | ... |
| 24 | 1784 Lalande ... | + 3·0819 | + 0·0058 | ... | − 19·482 | + 0·115 | ... | ... |
| 25 | 71 Piscium ε... ... | + 3·1124 | + 0·0087 | − 0·002 | − 19·464 | + 0·119 | 0·00 | 288 |
| 26 | 26 Ceti ... ... | + 3·0757 | + 0·0053 | ... | − 19·444 | + 0·118 | ... | 295 |
| 27 | 1879 Lalande ... | + 3·0812 | + 0·0058 | ... | − 19·424 | + 0·120 | ... | ... |
| 28 | 0·1031 W. B. E. ... | + 3·0833 | + 0·0061 | ... | − 19·394 | + 0·123 | ... | ... |
| 29 | 29 Ceti ... ... | + 3·0799 | + 0·0058 | ... | − 19·352 | + 0·126 | ... | 324 |
| 30 | 80 Piscium e .. | + 3·1025 | + 0·0077 | − 0·021 | − 19·343 | + 0·128 | + 0·19 | 328 |
| 31 | 1·15 W. B. E. ... | + 3·0869 | + 0·0065 | ... | − 19·304 | + 0·130 | ... | ... |
| 32 | 2089 Lalande ... | + 3·0836 | + 0·0062 | ... | − 19·294 | + 0·131 | ... | ... |
| 33 | 33 Ceti ... ... | + 3·0830 | + 0·0062 | − 0·003 | − 19·292 | + 0·131 | + 0·02 | 344 |
| 34 | 1·101 W. B. E. ... | + 3·0862 | + 0·0066 | ... | − 19·187 | + 0·130 | ... | ... |
| 35 | ... ... ... | + 3·0879 | + 0·0068 | ... | − 19·149 | + 0·142 | ... | ... |

## *Mean Positions of Stars for 1862 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 36 | 89 Piscium *f* ... ... | 6·0 | ... | 1 | 10 | 40·96 | 87 | 6 | 47·5 | 13 | 0·77 |
| 37 | 43 Ceti ... ... ... | 6·5 | ... | 1 | 15 | 31·44 | 91 | 10 | 21·1 | 8 | 0·77 |
| 38 | 45 Ceti θ ... ... ... | 4·6 | ... | 1 | 17 | 7·49 | 98 | 53 | 47·6 | 4 | 0·86 |
| 39 | 93 Piscium ρ ... ... | 5·0 | ... | 1 | 18 | 49·25 | 71 | 32 | 49·3 | 1 | 0·77 |
| 40 | 465 Taylor ... ... | 7·0 | 1 | 1 | 19 | 23·64 | 91 | 7 | 2·8 | 3 | 0·84 |
| 41 | 98 Piscium μ ... ... | 5·0 | ... | 1 | 22 | 57·40 | 84 | 34 | 7·6 | 7 | 0·69 |
| 42 | 99 Piscium η ... ... | 4·7 | ... | 1 | 24 | 6·16 | 75 | 22 | 0·7 | 7 | 0·79 |
| 43 | 514 Taylor ... ... | 6·0 | 2 | 1 | 28 | 27·04 | 73 | 16 | 27·3 | 2 | 0·92 |
| 44 | 106 Piscium ν ... ... | 4·6 | ... | 1 | 34 | 15·12 | 85 | 12 | 43·7 | 22 | 0·73 |
| 45 | 590 Taylor ... ... | 7·0 | ... | 1 | 41 | 17·19 | 87 | 0 | 18·3 | 4 | 0·70 |
| 46 | 111 Piscium 1 ... ... | 5·5 | ... | 1 | 46 | 24·71 | 87 | 29 | 43·4 | 5 | 0·70 |
| 47 | 6 Arietis β ... ... | 2·9 | ... | 1 | 47 | 1·30 | 69 | 52 | 6·3 | 15 | 0·80 |
| 48 | 13 Arietis α ... ... | 2·0 | ... | 1 | 59 | 23·95 | 67 | 11 | 31·7 | 11 | 0·84 |
| 49 | 21 Arietis ... ... | 6·7 | 2 | 2 | 7 | 53·29 | 65 | 35 | 55·3 | 3 | 0·90 |
| 50 | 67 Ceti ... ... | 6·1 | ... | 2 | 10 | 6·01 | 97 | 3 | 36·0 | 6 | 0·89 |
| 51 | 22 Arietis θ ... ... | 5·9 | .. | 2 | 10 | 37·15 | 70 | 44 | 20·3 | 1 | 0·77 |
| 52 | 68 Ceti ο Var. 1 ... ... | 5.7 | 2 | 2 | 12 | 22·52 | 93 | 36 | 22·1 | 3 | 0·83 |
| 53 | 73 Ceti ξ² ... ... | 4·4 | ... | 2 | 20 | 40·52 | 82 | 9 | 38·1 | 6 | 0·89 |
| 54 | 26 R. P. L. ... ... | 8·0 | ... | 2 | 21 | 57·39 | 3 | 33 | 29·5 | 3 | 0·86 |
| 55 | 31 Arietis ... ... | 5·5 | ... | 2 | 29 | 6·59 | 78 | 9 | 11·1 | 2 | 0·92 |
| 56 | 32 Arietis ν. ... ... | 6·0 | ... | 2 | 30 | 59·20 | 68 | 38 | 16·1 | 1 | 0·69 |
| 57 | 86 Ceti γ ... ... .. | 4·0 | ... | 2 | 36 | 9·11 | 87 | 20 | 52·4 | 4 | 0·91 |
| 58 | 42 Arietis π ... .. | 5·7 | ... | 2 | 41 | 35·86 | 73 | 6 | 45·1 | 1 | 0·69 |
| 59 | 48 Arietis ε ... ... | 5·3 | ... | 2 | 51 | 19·59 | 69 | 12 | 50·5 | 2 | 0·81 |
| 60 | 92 Ceti α .. ... ... | 2·3 | ... | 2 | 55 | 4·01 | 86 | 27 | 14·0 | 2 | 0·88 |
| 61 | 33 R. P. L. ... .. | 5·7 | ... | 3 | 0 | 16·00 | 5 | 35 | 17·2 | 2 | 0·92 |
| 62 | 57 Arietis δ ... .. | 4·1 | ... | 3 | 3 | 44·61 | 70 | 47 | 53·6 | 2 | 0·85 |
| 63 | 58 Arietis ζ .. .. | 5·8 | ... | 3 | 6 | 58·30 | 69 | 28 | 11·3 | 2 | 0·92 |
| 64 | .. ... .. .. | 8·0 | 1 | 3 | 12 | 18·91 | 130 | 58 | 40·2 | 1 | 0·91 |
| 65 | 33 Persei α ... . | 2·6 | ... | 3 | 14 | 29·21 | 40 | 38 | 1·7 | 1 | 0·94 |
| 66 | 17 Tauri ... .. .. | 4·0 | ... | 3 | 36 | 41·23 | 66 | 19 | 25·2 | 2 | 0.85 |
| 67 | ... ... ... .. | 8·0 | 1 | 3 | 38 | 1·98 | 136 | 13 | 17·3 | 1 | 0·91 |
| 68 | 25 Tauri η .. .. | 3·7 | ... | 3 | 39 | 17·10 | 66 | 19 | 29·5 | 3 | 0·92 |
| 69 | 34 Eridani γ¹ .. .. | 3·5 | ... | 3 | 51 | 35·48 | 103 | 54 | 11·5 | 3 | 0.92 |
| 70 | ... ... ... .. | 10·0 | 1 | 3 | 53 | 0·15 | 128 | 25 | 47·3 | 1 | 0·19 |

52—Mira Ceti Var. 1,—Period 331 days,—Range 2nd to 10th magnitude.
66—Electra ... . .. ... .. 68.—Alcyone.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. Annual Precession. | In Right Ascension. Secular Variation. | In Right Ascension. Proper Motion. | In Polar Distance. Annual Precession. | In Polar Distance. Secular Variation. | In Polar Distance. Proper Motion. | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | s | s | s | " | " | " | |
| 36 | 89 Piscium f ... ... | + 3·0924 | + 0·0072 | − 0·005 | − 19·100 | + 0·146 | + 0·02 | 388 |
| 37 | 43 Ceti ... ... ... | + 3·0632 | + 0·0053 | ... | − 18·976 | + 0·153 | ... | 406 |
| 38 | 45 Ceti θ ... ... | + 3·0029 | + 0·0018 | − 0·007 | − 18·931 | + 0·154 | + 0·22 | 420 |
| 39 | 93 Piscium ρ ... ... | + 3·2206 | + 0·0163 | ... | − 18·912 | + 0·165 | ... | 427 |
| 40 | 465 Taylor ... ... | + 3·0810 | + 0·0056 | ... | − 18·864 | + 0·161 | ... | 433 |
| 41 | 98 Piscium μ ... ... | + 3·1171 | + 0·0089 | + 0·019 | − 18·755 | + 0·169 | + 0·18 | 448 |
| 42 | 99 Piscium η ... ... | + 3·1973 | + 0·0142 | 0·000 | − 18·720 | + 0·176 | 0·00 | 453 |
| 43 | 514 Taylor ... ... | + 3·2235 | + 0·0154 | ... | − 18·580 | + 0·185 | ... | 477 |
| 44 | 106 Piscium ν ... | + 3·1167 | + 0·0091 | − 0·004 | − 18·383 | + 0·191 | + 0·04 | 518 |
| 45 | 590 Taylor ... ... | + 3·1020 | + 0·0083 | ... | − 18·128 | + 0·202 | ... | 551 |
| 46 | 111 Piscium ξ ... | + 3·0983 | + 0·0083 | − 0·002 | − 17·931 | + 0·210 | + 0·08 | 574 |
| 47 | 6 Arietis β ... ... | + 3·2926 | + 0·0183 | + 0·002 | − 17·908 | + 0·226 | + 0·11 | 577 |
| 48 | 13 Arietis α ... ... | + 3·3518 | + 0·0203 | + 0·012 | − 17·395 | + 0·252 | + 0·15 | 648 |
| 49 | 21 Arietis ... ... | + 3·3932 | + 0·0215 | ... | − 17·013 | + 0·269 | ... | 693 |
| 50 | 67 Ceti ... ... | + 2·9829 | + 0·0049 | + 0·003 | − 16·909 | + 0·242 | + 0·14 | 704 |
| 51 | 22 Arietis θ ... ... | + 3·3222 | + 0·0179 | − 0·002 | − 16·940 | + 0·260 | + 0·01 | 707 |
| 52 | 68 Ceti o Var. 1 ... | + 3·0260 | + 0·0064 | − 0·003 | − 16·801 | + 0·248 | + 0·23 | 720 |
| 53 | 73 Ceti ξ² ... ... | + 3·1781 | + 0·0117 | + 0·001 | − 16·387 | + 0·276 | + 0·02 | 760 |
| 54 | 26 R. P. L. ... ... | + 15·5555 | + 3·5726 | ... | − 16·329 | + 1·324 | ... | ... |
| 55 | 31 Arietis ... ... | + 3·2419 | + 0·0137 | ... | − 15·958 | + 0·294 | ... | 798 |
| 56 | 32 Arietis ν ... ... | + 3·3922 | + 0·0193 | − 0·002 | − 15·858 | + 0·310 | + 0·02 | 808 |
| 57 | 86 Ceti γ ... ... | + 3·1110 | + 0·0094 | − 0·011 | − 15·578 | + 0·294 | + 0·19 | 837 |
| 58 | 42 Arietis π ... ... | + 3·2351 | + 0·0163 | − 0·002 | − 15·273 | + 0·322 | − 0·02 | 870 |
| 59 | 48 Arietis ε ... ... | + 3·4170 | + 0·0185 | − 0·001 | − 14·711 | + 0·343 | + 0·02 | 921 |
| 60 | 92 Ceti α ... ... | + 3·1292 | + 0·0098 | − 0·002 | − 14·483 | + 0·323 | + 0·11 | 949 |
| 61 | 33 R. P. L. ... ... | + 12·7464 | + 1·5782 | 0·000 | − 14·164 | + 1·322 | + 0·08 | 960 |
| 62 | 57 Arietis δ ... ... | + 3·4066 | + 0·0171 | + 0·010 | − 13·948 | + 0·364 | + 0·00 | 986 |
| 63 | 58 Arietis ζ ... ... | + 3·4382 | + 0·0176 | − 0·006 | − 13·680 | + 0·373 | + 0·07 | 999 |
| 64 | ... ... ... | + 2·2080 | + 0·0011 | ... | − 13·308 | + 0·216 | | ... |
| 65 | 33 Persei α ... ... | + 4·2410 | + 0·0483 | + 0·002 | − 13·258 | + 0·473 | + 0·05 | 1043 |
| 66 | 17 Tauri ... ... | + 3·5474 | + 0·0180 | 0·000 | − 11·740 | + 0·424 | + 0·04 | 1147 |
| 67 | ... ... ... | + 1·8360 | + 0·0044 | ... | − 11·640 | + 0·223 | ... | ... |
| 68 | 25 Tauri η ... ... | + 3·5511 | + 0·0177 | − 0·001 | − 11·555 | + 0·430 | + 0·06 | 1166 |
| 69 | 34 Eridani γ¹ ... ... | + 2·7916 | + 0·0047 | + 0·002 | − 10·657 | + 0·350 | + 0·12 | 1234 |
| 70 | ... ... ... | + 2·1698 | + 0·0080 | ... | − 10·563 | + 0·274 | ... | ... |

52. Proper motion adopted from the "*British Association Catalogue.*"
53. Proper motion deduced from the "*Nautical Almanac for 1862.*"

*Mean Positions of Stars for 1862 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 71 | 35 Tauri λ Var. 1 ... | 4·5 | ... | 3 | 53 | 2·16 | 77 | 54 | 10·5 | 1 | 0·90 |
| 72 | 37 Tauri A[1] ... | 4·7 | ... | 3 | 56 | 32·47 | 68 | 17 | 55·7 | 2 | 0·92 |
| 73 | ... .. ... ... | 9·0 | 1 | 4 | 3 | 39·47 | 146 | 56 | 47·4 | 1 | 0·91 |
| 74 | 74 Tauri ε ... ... ... | 3·7 | ... | 4 | 20 | 33·75 | 71 | 7 | 45·3 | 4 | 0·89 |
| 75 | 87 Tauri α ... ... ... | 1·0 | ... | 4 | 28 | 0·29 | 73 | 46 | 18·5 | 1 | 0·93 |
| 76 | 3 Aurigæ ι ... ... | 4·0 | ... | 4 | 48 | 0·67 | 57 | 3 | 24·5 | 2 | 0·94 |
| 77 | 109 Tauri n ... ... | 6·0 | 1 | 5 | 10 | 59·17 | 68 | 3 | 0·4 | 1 | 0·93 |
| 78 | 112 Tauri β ... ... | 2·0 | ... | 5 | 17 | 34·20 | 61 | 30 | 40·0 | 2 | 0·89 |
| 79 | 40 R. P. L. ... ... | 6·2 | ... | 5 | 18 | 8·42 | 4 | 53 | 10·3 | 1 | 0·93 |
| 80 | 123 Tauri ζ ... ... | 4·0 | ... | 5 | 29 | 23·99 | 68 | 56 | 43·2 | 1 | 0·85 |
| 81 | ... ... ... ... | 9·5 | ... | 5 | 49 | 21·27 | 63 | 50 | 15·9 | 1 | 0·93 |
| 82 | 43 R. P. L. ... ... | 6·6 | ... | 5 | 51 | 7·35 | 3 | 14 | 23·0 | 1 | 0·94 |
| 83 | 13 Geminorum μ ... ... | 3·4 | ... | 6 | 14 | 36·60 | 67 | 25 | 9·7 | 1 | 0·94 |
| 84 | 24 Geminorum γ ... ... | 2·6 | ... | 6 | 29 | 44·37 | 73 | 29 | 12·6 | 2 | 0·94 |
| 85 | 68 Geminorum ... | 5·4 | ... | 7 | 25 | 43·71 | 73 | 52 | 50·3 | 1 | 0·94 |
| 86 | 81 Geminorum g ... ... | 4·9 | ... | 7 | 38 | 7·86 | 71 | 9 | 24·2 | 2 | 0·94 |
| 87 | 70 R. P. L. ... ... | 6·5 | ... | 9 | 45 | 55·84 | 5 | 25 | 14·4 | 1 | 0·76 |
| 88 | 72 R. P. L. ... ... | 5·9 | ... | 10 | 9 | 0·70 | 5 | 3 | 2·7 | 10 | 0·80 |
| 89 | 79 R. P. L. ... ... | 7·7 | ... | 10 | 54 | 55·00 | 1 | 36 | 45·1 | 1 | 0·82 |
| 90 | 89 R. P. L. ... ... | 6·3 | ... | 11 | 57 | 44·99 | 3 | 38 | 53·0 | 3 | 0·82 |
| 91 | 2 Corvi ε ... ... | 3·0 | ... | 12 | 3 | 1·82 | 111 | 51 | 8·3 | 3 | 0·42 |
| 92 | 92 R. P. L. ... ... | 6·7 | ... | 12 | 12 | 50·01 | 2 | 47 | 49·5 | 1 | 0·87 |
| 93 | 93 R. P. L. ... ... | 6·5 | ... | 12 | 14 | 20·34 | 1 | 32 | 7·8 | 1 | 0·84 |
| 94 | 21 Virginis q ... ... | 6·0 | ... | 12 | 26 | 39·49 | 98 | 41 | 26·0 | 1 | 0·43 |
| 95 | 9 Corvi β ... ... | 2·3 | ... | 12 | 27 | 5·56 | 112 | 38 | 0·6 | 3 | 0·42 |
| 96 | 67 Virginis α .. ... | 1·0 | ... | 13 | 17 | 55·63 | 100 | 26 | 25·8 | 2 | 0·42 |
| 97 | 103 R. P. L. ... ... | 7·3 | ... | 13 | 20 | 20·74 | 4 | 31 | 28·7 | 1 | 0·85 |
| 98 | 79 Virginis ζ ... ... | 4·1 | ... | 13 | 27 | 39·81 | 90 | 53 | 22·6 | 2 | 0·43 |
| 99 | 85 Ursæ Majoris η ... | 2·3 | ... | 13 | 42 | 6·02 | 39 | 58 | 49·7 | 1 | 0·44 |
| 100 | 8 Bootis η ... ... | 3·0 | ... | 13 | 48 | 6·75 | 70 | 54 | 33·0 | 2 | 0·43 |
| 101 | 93 Virginis τ ... ... | 4·3 | ... | 13 | 54 | 37·51 | 87 | 47 | 10·4 | 1 | 0·45 |
| 102 | 108 R. P. L. ... ... | 7·3 | ... | 14 | 4 | 11·79 | 3 | 34 | 54·2 | 1 | 0·43 |
| 103 | 16 Bootis α ... ... | 1·0 | ... | 14 | 9 | 22·03 | 70 | 5 | 51·8 | 4 | 0·45 |
| 104 | 100 Virginis λ ... ... | 5·3 | ... | 14 | 11 | 38·72 | 102 | 44 | 2·4 | 1 | 0·44 |
| 105 | 25 Bootis ρ ... ... | 4·0 | ... | 14 | 25 | 52·89 | 59 | 1 | 17·7 | 5 | 0·43 |

71.—λ Tauri Var. 1.—Period, 3·96 days.—Range, 3·4 to 4·3 magnitude.
75.—Aldebaran .... ........ ...96.—Spica................ 103.—Arcturus.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 71 | 35 Tauri λ Var. 1 .. | + 3·3158 | + 0·0115 | ... | − 10·550 | + 0·416 | ... | 1241 |
| 72 | 37 Tauri A¹ ... ... | + 3·5298 | + 0·0153 | + 0·004 | − 10·288 | + 0·446 | + 0·09 | 1257 |
| 73 | ... ... ... .. | + 1·2763 | + 0·0290 | ... | − 9·749 | + 0·167 | ... | ... |
| 74 | 74 Tauri ε ... .. | + 3·4866 | + 0·0120 | + 0·005 | − 8·432 | + 0·468 | + 0·03 | 1376 |
| 75 | 87 Tauri α ... .. | + 3·4302 | + 0·0097 | + 0·004 | − 7·836 | + 0·461 | + 0·17 | 1420 |
| 76 | 3 Aurigæ ι ... .. | + 3·8959 | + 0·0144 | − 0·003 | − 6·197 | + 0·544 | + 0·02 | 1520 |
| 77 | 109 Tauri n ... .. | + 3·5986 | + 0·0078 | + 0·001 | − 4·255 | + 0·409 | − 0·08 | 1637 |
| 78 | 112 Tauri β ... .. | + 3·7851 | + 0·0082 | + 0·003 | − 3·693 | + 0·545 | + 0·20 | 1681 |
| 79 | 40 R. P. L. ... .. | + 18·4530 | + 0·6965 | ... | − 3·613 | + 2·649 | ... | 1662 |
| 80 | 123 Tauri ζ ... .. | + 3·5822 | + 0·0055 | 0·000 | − 2·671 | + 0·519 | + 0·05 | 1767 |
| 81 | ... ... ... .. | + 3·7283 | + 0·0031 | ... | − 0·930 | + 0·543 | ... | ... |
| 82 | 43 R. P. L. ... ... | + 26·6742 | + 0·3267 | ... | − 0·777 | + 3·888 | ... | 1579 |
| 83 | 13 Geminorum μ .. | + 3·6268 | − 0·0003 | + 0·005 | + 1·279 | + 0·527 | + 0·14 | 2047 |
| 84 | 24 Geminorum γ .. | + 3·4650 | − 0·0015 | + 0·001 | + 2·595 | + 0·500 | + 0·04 | 2163 |
| 85 | 68 Geminorum ... | + 3·4317 | − 0·0066 | − 0·004 | + 7·329 | + 0·463 | 0·00 | 2456 |
| 86 | 81 Geminorum g ... | + 3·4872 | − 0·0086 | − 0·008 | + 8·328 | + 0·459 | + 0·05 | 2558 |
| 87 | 70 R. P. L. ... ... | + 10·8518 | + 1·5994 | ... | + 16·720 | + 0·867 | ... | ... |
| 88 | 72 R. P. L. ... .. | + 10·1146 | − 1·6770 | − 0·079 | + 17·749 | + 0·677 | + 0·06 | 3495 |
| 89 | 79 R. P. L. ... ... | + 16·3843 | − 9·8553 | ... | + 19·251 | + 0·062 | ... | ... |
| 90 | 89 R. P. L. ... ... | + 3·2779 | − 0·5296 | ... | + 20·055 | − 0·004 | ... | 4070 |
| 91 | 2 Corvi ε ... .. | + 3·0791 | + 0·0142 | − 0·005 | + 20·054 | − 0·016 | − 0·01 | 4097 |
| 92 | 92 R. P. L. ... .. | + 1·5426 | + 0·0007 | + 0·415 | + 20·024 | − 0·022 | + 0·08 | 4150 |
| 93 | 93 R. P. L. ... .. | − 0·0472 | + 1·1509 | − 0·152 | + 20·016 | − 0·009 | − 0·07 | 4165 |
| 94 | 21 Virginis q .. .. | + 3·0958 | + 0·0080 | − 0·009 | + 19·920 | − 0·062 | 0·00 | 4230 |
| 95 | 9 Corvi β ... .. | + 3·1379 | + 0·0165 | − 0·008 | + 19·915 | − 0·064 | + 0·07 | 4234 |
| 96 | 67 Virginis α ... .. | + 3·1543 | + 0·0100 | − 0·005 | + 19·308 | − 0·163 | + 0·04 | 4490 |
| 97 | 103 R. P. L. ... .. | − 2·7310 | + 0·0934 | ... | + 18·836 | + 0·129 | ... | 4498 |
| 98 | 79 Virginis ζ .. .. | + 3·0710 | + 0·0064 | − 0·019 | + 18·606 | − 0·176 | − 0·06 | 4532 |
| 99 | 85 Urs. Maj. η .. | + 2·3852 | − 0·0103 | − 0·012 | + 18·078 | − 0·159 | + 0·03 | 4607 |
| 100 | 8 Bootis η ... .. | + 2·8617 | − 0·0006 | − 0·004 | + 17·866 | − 0·199 | + 0·36 | 4645 |
| 101 | 93 Virginis τ .. | + 3·0472 | + 0·0054 | + 0·001 | + 17·599 | − 0·222 | + 0·07 | 4672 |
| 102 | 108 R. P. L. ... .. | − 7·9149 | + 2·5361 | ... | + 17·182 | + 0·591 | ... | ... |
| 103 | 16 Bootis α ... .. | + 2·8130 | + 0·0004 | − 0·079 | + 16·914 | − 0·227 | + 1·93 | 4729 |
| 104 | 100 Virginis λ .. | + 3·2362 | + 0·0140 | − 0·002 | + 16·536 | − 0·261 | − 0·02 | 4743 |
| 105 | 25 Bootis ρ ... .. | + 2·5944 | − 0·0015 | − 0·008 | + 16·127 | − 0·233 | − 0·14 | 4808 |

*Mean Positions of Stars for 1862 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 106 | 5 Libræ ... ... ... | 6·2 | ... | 14 | 38 | 21·39 | 104 | 52 | 32·9 | 1 | 0·44 |
| 107 | 36 Bootis ε ... ... | 2·3 | ... | 14 | 38 | 57·60 | 62 | 20 | 33·2 | 3 | 0·44 |
| 108 | 9 Libræ α² ... ... | 3·7 | ... | 14 | 43 | 14·77 | 105 | 27 | 57·9 | 2 | 0·42 |
| 109 | 7 Ursæ Minoris β ... | 2·8 | ... | 14 | 51 | 8·66 | 15 | 16 | 51·0 | 2 | 0·49 |
| 110 | 43 Bootis ψ ... ... | 5·0 | ... | 14 | 58 | 32·03 | 62 | 30 | 46·3 | 3 | 0·42 |
| 111 | 24 Libræ ι ... ... | 5·3 | ... | 15 | 4 | 21·52 | 109 | 16 | 1·6 | 2 | 0·44 |
| 112 | 111 R. P. L. ... ... | 6·9 | ... | 15 | 5 | 58·11 | 5 | 31 | 0·0 | 2 | 0·44 |
| 113 | 27 Libræ β ... ... | 2·0 | ... | 15 | 9 | 34·88 | 98 | 52 | 17·1 | 3 | 0·45 |
| 114 | 32 Libræ ζ¹ ... ... | 5·7 | ... | 15 | 20 | 28·65 | 106 | 13 | 57·4 | 2 | 0·41 |
| 115 | 114 R. P. L. ... ... | 6·9 | ... | 15 | 23 | 16·62 | 2 | 14 | 37·9 | 1 | 0·92 |
| 116 | 5 Coronæ Borealis α ... | 2·0 | ... | 15 | 28 | 50·78 | 62 | 49 | 8·3 | 6 | 0·45 |
| 117 | 24 Serpentis α ... ... | 2·3 | ... | 15 | 37 | 28·25 | 83 | 8 | 16·4 | 2 | 0·46 |
| 118 | 115 R. P. L. ... ... | 6·9 | ... | 15 | 49 | 0·87 | 4 | 43 | 35·0 | 1 | 0·43 |
| 119 | 16 Ursæ Minoris ζ ... | 4·0 | ... | 15 | 49 | 4·15 | 11 | 46 | 58·0 | 1 | 0·55 |
| 120 | 7 Scorpii ... ... | 4·0 | ... | 15 | 52 | 10·41 | 112 | 13 | 32·7 | 1 | 0·52 |
| 121 | 8 Scorpii β¹ ... ... | 3·0 | ... | 15 | 57 | 25·00 | 109 | 25 | 29·2 | 13 | 0·51 |
| 122 | 1 Ophiuchi δ ... ... | 3·0 | ... | 16 | 7 | 6·90 | 93 | 20 | 13·0 | 1 | 0·44 |
| 123 | 21 Scorpii α ... .. | 1·3 | ... | 16 | 20 | 57·00 | 116 | 7 | 2[illegible]7 | 8 | 0·52 |
| 124 | S Ophiuchi Var. 3 ... | ... | ... | 16 | 26 | 18·98 | 106 | 52 | 3·1 | 1 | 0·58 |
| 125 | 40 Herculis ζ ... .. | 2·7 | ... | 16 | 36 | 5·06 | 58 | 8 | 44·0 | 9 | 0·55 |
| 126 | 27 Ophiuchi α ... ... | 3·7 | ... | 16 | 51 | 8·24 | 80 | 21 | 27·6 | 9 | 0·55 |
| 127 | 22 Ursæ Minoris ε ... | 4·1 | ... | 17 | 0 | 14·52 | 7 | 44 | 31·3 | 2 | 0·91 |
| 128 | R Ophiuchi Var. 2 ... | ... | ... | 16 | 59 | 50·59 | 105 | 54 | 20·1 | 3 | 0·58 |
| 129 | 64 Herculis α Var. 1 .. | 3·0 | ... | 17 | 8 | 21·31 | 75 | 26 | 58·6 | 5 | 0·55 |
| 130 | 42 Ophiuchi θ ... ... | 5·6 | ... | 17 | 13 | 32·07 | 114 | 51 | 29·0 | 4 | 0·53 |
| 131 | 45 Ophiuchi d ... .. | 5·0 | ... | 17 | 18 | 32·65 | 119 | 44 | 17·1 | 2 | 0·55 |
| 132 | 55 Ophiuchi α ... ... | 2·0 | ... | 17 | 28 | 31·73 | 77 | 20 | 12·9 | 8 | 0·55 |
| 133 | — Scorpii α ... ... | 2·3 | ... | 17 | 32 | 50·53 | 128 | 57 | 16·5 | 3 | 0·57 |
| 134 | ... ... ... ... | 8·5 | ... | 17 | 37 | 31·78 | 126 | 29 | 14·8 | 2 | 0·58 |
| 135 | ... ... ... .. | 8·0 | ... | 17 | 39 | 35·46 | 127 | 14 | 31·4 | 1 | 0·58 |
| 136 | 86 Herculis μ ... .. | 3·3 | ... | 17 | 41 | 3·46 | 62 | 11 | 47·5 | 3 | 0·53 |
| 137 | 8282 Taylor ... ... | 7·0 | 1 | 17 | 47 | 59·40 | 131 | 41 | 31·9 | 2 | 0·57 |
| 138 | 7499 Lacaille ... ... | 7·0 | ... | 17 | 48 | 6·97 | 129 | 4 | 38·1 | 1 | 0·58 |
| 139 | 7504 Lacaille ... ... | 7·0 | ... | 17 | 48 | 23·08 | 129 | 6 | 46·3 | 2 | 0·57 |
| 140 | 33 Draconis γ ... ... | 2·3 | ... | 17 | 53 | 24·35 | 38 | 29 | 38·2 | 1 | 0·47 |

107.—Mirac . ...... 116.—Alpheta ........... ...123.—Antares.
124.—S Ophiuchi Var. 3.—Period, 234 days.—Range, 9th. magnitude to invisibility.
127.—R Ophiuchi Var. 2.—Period, 302 days.—Range, 7·5 magnitude to invisibility.
129.—α Herculis Var. 1:—supposed to vary irregularly between 3rd. and 4th. magnitudes.
134, 135, 138, 139. Comparison stars for Donati's comet of 1858.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star | In Right Ascension. | | | In Polar Distance | | | Number in B. A. C |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 106 | 5 Libræ ... ... | + 3·2977 | + 0·0152 | − 0·003 | + 15·456 | − 0·314 | + 0·01 | 4868 |
| 107 | 36 Bootis ε ... ... | + 2·6240 | − 0·0001 | − 0·005 | + 15·422 | − 0·252 | − 0·01 | 4876 |
| 108 | 9 Libræ $\alpha^2$ ... ... | + 3·3137 | + 0·0154 | − 0·007 | + 15·179 | − 0·324 | + 0·06 | 4895 |
| 109 | 7 Urs. Min. β ... | − 0·2520 | + 0·1022 | − 0·005 | + 14·719 | + 0·018 | + 0·03 | 4986 |
| 110 | 43 Bootis ψ ... ... | + 2·5880 | + 0·0010 | − 0·013 | + 14·267 | − 0·232 | 0·00 | 4969 |
| 111 | 24 Libræ ι ... ... | + 3·4087 | + 0·0171 | − 0·002 | + 13·909 | − 0·364 | + 0·04 | 4995 |
| 112 | 111 R. P. L ... ... | − 6·9685 | + 1·1915 | ... | + 13·807 | + 0·731 | ... | 5022 |
| 113 | 27 Libræ β ... .. | − 3·2256 | + 0·0117 | − 0·009 | + 13·576 | − 0·353 | + 0·01 | 5034 |
| 114 | 32 Libræ $\zeta^1$ ... ... | − 3·3707 | + 0·0148 | ... | + 12·859 | − 0·384 | ... | 5069 |
| 115 | 114 R. P. L. ... ... | − 23·3779 | + 7·8320 | ... | + 12·671 | + 2·638 | ... | 5140 |
| 116 | 5 Coronæ Bor. α ... | + 2·5294 | + 0·0023 | + 0·009 | + 12·280 | − 0·297 | + 0·07 | 5143 |
| 117 | 24 Serpentis α ... | + 2·9412 | + 0·0062 | + 0·009 | + 11·683 | − 0·354 | − 0·05 | 5196 |
| 118 | 115 R. P. L. ... | − 8·1427 | + 1·0281 | ... | + 10·848 | + 0·991 | ... | ... |
| 119 | 16 Urs. Min. ζ ... | − 2·3195 | + 0·2031 | − 0·005 | + 10·845 | + 0·276 | + 0·08 | 5285 |
| 120 | 7 Scorpii δ ... ... | + 3·5356 | + 0·0159 | − 0·001 | + 10·614 | − 0·443 | − 0·01 | 5303 |
| 121 | 8 Scorpii $\beta^1$ ... | + 3·4776 | + 0·0142 | − 0·002 | + 10·223 | − 0·441 | + 0·02 | 5329 |
| 122 | 1 Ophiuchi δ ... | + 3·1406 | + 0·0081 | − 0·006 | + 9·483 | − 0·408 | + 0·13 | 5414 |
| 123 | 21 Scorpii α ... ... | + 3·6672 | + 0·0150 | − 0·001 | + 8·400 | − 0·491 | + 0·03 | 5498 |
| 124 | S Ophiuchi Var. 3 ... | + 3·4139 | + 0·0109 | ... | + 7·972 | − 0·464 | ... | ... |
| 125 | 40 Herculis ζ ... | + 2·2962 | + 0·0033 | − 0·034 | + 7·187 | − 0·316 | − 0·45 | 5604 |
| 126 | 27 Ophiuchi κ ... | + 2·8561 | + 00·043 | − 0·022 | + 5·936 | − 0·401 | − 0·02 | 5708 |
| 127 | R Ophiuchi Var. 2 ... | + 3·4400 | + 0·0077 | ... | + 5·204 | − 0·487 | ... | ... |
| 128 | 22 Urs. Min. ε ... | − 6·4307 | + 0·3030 | + 0·009 | + 5·170 | + 0·904 | − 0·01 | 5780 |
| 129 | 64 Herculis α Var. 1... | + 2·7336 | + 0·0035 | − 0·003 | + 4·481 | − 0·391 | − 0·04 | 5821 |
| 130 | 42 Ophiuchi θ .. | + 3·6787 | + 0·0080 | − 0·003 | + 4·038 | − 0·528 | − 0·02 | 5851 |
| 131 | 45 Ophiuchi d ... | + 3·8224 | + 0·0094 | ... | + 3·675 | − 0·551 | + 0·18 | 5881 |
| 132 | 55 Ophiuchi α .. | + 2·7774 | + 0·0030 | + 0·004 | + 2·745 | − 0·402 | + 0·20 | 5911 |
| 133 | — Scorpii κ ... ... | + 4·1454 | + 0·0079 | 0·000 | + 2·362 | − 0·601 | + 0·01 | 5970 |
| 134 | ... ... ... | + 4·1684 | + 0·0068 | ... | + 1·963 | − 0·605 | ... | ... |
| 135 | ... ... .. | + 4·0844 | + 0·0060 | ... | + 1·785 | − 0·594 | ... | — |
| 136 | 86 Herculis μ .. | + 2·3694 | + 0·0025 | − 0·026 | + 1·656 | − 0·315 | + 0·74 | 6021 |
| 137 | 8282 Taylor ... .. | + 4·2604 | + 0·0016 | ... | + 1·051 | − 0·621 | ... | 6061 |
| 138 | 7499 Lacaille .. .. | + 4·1561 | + 0·0042 | ... | + 1·040 | − 0·605 | ... | ... |
| 139 | 7501 Lacaille... ... | + 4·1577 | + 0·0042 | ... | + 1·015 | − 0·606 | ... | ... |
| 140 | 33 Draconis γ ... | + 1·3914 | + 0·0080 | 0·000 | + 0·577 | − 0·203 | + 0·01 | 6091 |

119.—The Proper Motion in R. A. deduced from the "*Nautical Almanac for* 1862."
126.—The Proper Motions deduced from the "*Nautical Almanac for* 1862."

*Mean Positions of Stars for 1862 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Right Ascension. | | | Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h | m. | s. | ° | ′ | ″ | | |
| 141 | — Sagittarii $\gamma^1$ ... ... | 4·3 | ... | 17 | 56 | 12·29 | 119 | 34 | 55·1 | 1 | 0·59 |
| 142 | 8355 Taylor ... ... | 5·7 | ... | 17 | 56 | 51·17 | 133 | 25 | 38·2 | 3 | 0·56 |
| 143 | ... ... ... ... | 9·0 | 1 | 18 | 1 | 5·18 | 131 | 43 | 35·8 | 2 | 0·60 |
| 144 | 13 Sagittarii $\mu$ ... ... | 4·7 | ... | 18 | 5 | 30·59 | 111 | 5 | 27·2 | 1 | 0·67 |
| 145 | 7622 Lacai ... ... | 7·0 | ... | 18 | 5 | 53·39 | 133 | 12 | 18·2 | 1 | 0·62 |
| 146 | 7644 Lacaille ... ... | 6·5 | ... | 18 | 8 | 49·12 | 132 | 20 | 3·0 | 1 | 0·54 |
| 147 | 8461 Taylor ... ... | 6·0 | ... | 18 | 14 | 16·50 | 134 | 9 | 26·8 | 1 | 0·62 |
| 148 | 22 Sagittarii $\lambda$ ... .. | 4·1 | ... | 18 | 19 | 27·13 | 115 | 29 | 37·1 | 1 | 0·67 |
| 149 | ... ... ... ... | 9·0 | ... | 18 | 22 | 42·21 | 135 | 15 | 52·6 | 1 | 0·62 |
| 150 | 3 Lyræ $\alpha$ ... ... ... | 1·0 | ... | 18 | 32 | 15·74 | 51 | 20 | 33·6 | 2 | 0·64 |
| 151 | ... ... ... ... | 7·5 | ... | 18 | 35 | 26·69 | 136 | 44 | 13·5 | 2 | 0·60 |
| 152 | ... ... ... ... | 7·5 | 1 | 18 | 35 | 39·84 | 137 | 11 | 6·6 | 1 | 0·64 |
| 153 | R Scuti Var. 1 ... ... | 4·4 | ... | 18 | 40 | 6·76 | 95 | 51 | 0·9 | 2 | 0·62 |
| 154 | 7872 Lacaille ... ... | 6·0 | ... | 18 | 42 | 11·14 | 136 | 45 | 9·1 | 1 | 0·64 |
| 155 | 7878 Lacaille ... ... | 7·0 | ... | 18 | 42 | 44·45 | 136 | 44 | 45·1 | 1 | 0·62 |
| 156 | 10 Lyræ $\beta$ Var. 1 ... | 3·9 | ... | 18 | 44 | 59·09 | 56 | 47 | 44·3 | 5 | 0·60 |
| 157 | 13 Lyræ Var. 2 ... ... | ... | ... | 18 | 51 | 8·15 | 46 | 14 | 3·2 | 3 | 0·60 |
| 158 | 17 Aquilæ $\zeta$ ... ... | 3·5 | ... | 18 | 59 | 4·00 | 76 | 20 | 20·6 | 5 | 0·61 |
| 159 | 41 Sagittarii $\pi$ ... ... | 4·4 | ... | 19 | 0 | 33·07 | 111 | 14 | 22·0 | 1 | 0·67 |
| 160 | ... ... ... ... | 9·0 | 1 | 19 | 8 | 9·62 | 129 | 49 | 15·9 | 1 | 0·64 |
| 161 | ... ... ... ... | 7·5 | ... | 19 | 9 | 59·73 | 123 | 31 | 8·8 | 3 | 0·61 |
| 162 | 25 Aquilæ $\omega$ ... ... | 5·8 | ... | 19 | 11 | 20·16 | 78 | 39 | 3·4 | 2 | 0·63 |
| 163 | 44 Sagittarii $\rho^1$ ... ... | 4·4 | ... | 19 | 13 | 39·87 | 108 | 6 | 13·0 | 1 | 0·67 |
| 164 | ... ... ... ... | 7·5 | 1 | 19 | 16 | 26·29 | 129 | 52 | 59·0 | 1 | 0·64 |
| 165 | 30 Aquilæ $\delta$ ... ... | 3·6 | ... | 19 | 18 | 32·33 | 87 | 9 | 26·7 | 3 | 0·61 |
| 166 | ... ... ... ... | 8·5 | 1 | 19 | 24 | 47·69 | 129 | 56 | 11·3 | 1 | 0·64 |
| 167 | 51 Sagittarii $\lambda^1$ ... ... | 6·0 | ... | 19 | 27 | 38·72 | 115 | 1 | 4·1 | 1 | 0·68 |
| 168 | 52 Sagittarii $\lambda^2$ ... ... | 5·3 | ... | 19 | 28 | 18·28 | 115 | 11 | 4·6 | 3 | 0·62 |
| 169 | ... ... ... ... | 9·0 | ... | 19 | 34 | 15·31 | 127 | 17 | 18·3 | 1 | 0·64 |
| 170 | 50 Aquilæ $\gamma$ ... ... | 3·0 | ... | 19 | 39 | 41·75 | 79 | 43 | 14·6 | 2 | 0·60 |
| 171 | ... ... ... ... | 7·5 | ... | 19 | 43 | 56·46 | 122 | 19 | 35·6 | 2 | 0·60 |
| 172 | 53 Aquilæ $\alpha$ ... ... | 1·3 | ... | 19 | 44 | 3·05 | 81 | 29 | 36·2 | 2 | 0·64 |
| 173 | 60 Aquilæ $\beta$ ... .. | 4·2 | ... | 19 | 48 | 32·02 | 83 | 56 | 7·1 | 2 | 0·64 |
| 174 | 9208 Taylor ... ... | 5·3 | ... | 19 | 55 | 34·10 | 122 | 26 | 25·1 | 3 | 0·56 |
| 175 | 5 Capricorni $\alpha^1$ ... ... | 4·0 | ... | 20 | 0 | 59·76 | 102 | 55 | 54·8 | 1 | 0·68 |

142, 145, 151, 152, 154, 155.—Comparison stars for Donati's comet of 1858.
150.—Vega.. ............... 153.—R Scuti Var. 1.—Period 71 days.—Range—5th. to 8·5 magnitude.
156.—β Lyræ Var. 1.—Period 12·9 days.—Range—3·5 to 4·5 magnitude.
157.—13 Lyræ Var. 2.—Period 46 days.—Range—4·2 to 4·6 magnitude.
161.—Comparison star for Pandora ..................172.—Altair.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. Annual Precession. | In Right Ascension. Secular Variation. | In Right Ascension. Proper Motion. | In Polar Distance. Annual Precession. | In Polar Distance. Secular Variation. | In Polar Distance. Proper Motion | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | s | s | s | " | " | " | |
| 141 | — Sagittarii $\gamma^1$ ... | + 3·8310 | + 0·0022 | ... | + 0·333 | − 0·550 | .. | 6107 |
| 142 | 8355 Taylor ... | + 4·3378 | + 0·0024 | ... | + 0·276 | − 0·632 | + 0·13 | 6112 |
| 143 | ... ... ... ... | + 4·2640 | + 0·0011 | ... | − 0·095 | − 0·622 | ... | ... |
| 144 | 13 Sagittarii $\mu$ ... | + 3·5875 | + 0·0009 | − 0·004 | − 0·482 | − 0·523 | + 0·01 | 6168 |
| 145 | 7623 Lacaille ... | + 4·3275 | − 0·0002 | ... | − 0·516 | − 0·631 | ... | ... |
| 146 | 7644 Lacaille ... | + 4·2892 | − 0·0010 | ... | − 0·770 | − 0·622 | ... | ... |
| 147 | 8461 Taylor ... ... | + 4·3678 | − 0·0028 | − 0·007 | − 1·248 | − 0·635 | − 0·05 | 6228 |
| 148 | 22 Sagittarii $\lambda$ ... | + 3·7073 | − 0·0013 | − 0·005 | − 1·701 | − 0·537 | + 0·24 | 6263 |
| 149 | ... ... ... ... | + 4·4148 | − 0·0059 | ... | − 1·984 | − 0·640 | ... | ... |
| 150 | 3 Lyræ $\alpha$ ... ... | + 2·0130 | + 0·0016 | + 0·017 | − 2·814 | − 0·290 | − 0·28 | 6355 |
| 151 | ... ... ... | + 4·4757 | − 0·0100 | ... | − 3·089 | − 0·644 | ... | ... |
| 152 | ... ... ... | + 4·4977 | − 0·0103 | ... | − 3·108 | − 0·647 | ... | ... |
| 153 | R Scuti Var. 1 .. | + 3·2070 | − 0·0011 | ... | − 3·492 | − 0·458 | ... | ... |
| 154 | 7872 Lacaille ... | + 4·4695 | − 0·0122 | ... | − 3·670 | − 0·639 | ... | ... |
| 155 | 7878 Lacaille ... | + 4·4685 | − 0·0124 | ... | − 3·719 | − 0·638 | ... | ... |
| 156 | 10 Lyræ $\beta$ Var. 1 ... | + 2·2137 | + 0·0015 | − 0·002 | − 3·912 | − 0·315 | + 0·03 | 6429 |
| 157 | 13 Lyræ Var. 2 ... | + 1·8232 | + 0·0008 | − 0·001 | − 4·436 | − 0·257 | ... | 6475 |
| 158 | 17 Aquilæ $\zeta$ ... .. | + 2·7578 | + 0·0003 | − 0·006 | − 5·112 | − 0·387 | + 0·07 | 6528 |
| 159 | 41 Sagittarii $\pi$ ... | + 3·5731 | − 0·0057 | − 0·004 | − 5·322 | − 0·500 | + 0·03 | 6548 |
| 160 | ... ... ... ... | + 4·1379 | − 0·0146 | ... | − 5·873 | − 0·574 | ... | ... |
| 161 | ... ... ... ... | + 3·9167 | − 0·0115 | ... | − 6·029 | − 0·542 | ... | ... |
| 162 | 25 Aquilæ $\omega$ ... ... | + 2·8164 | − 0·0003 | − 0·003 | − 6·143 | − 0·388 | − 0·02 | 6595 |
| 163 | 44 Sagittarii $\rho^1$ ... | + 3·4868 | − 0·0061 | − 0·003 | − 6·336 | − 0·480 | − 0·03 | 6619 |
| 164 | ... ... ... ... | + 4·1277 | − 0·0164 | ... | − 6·566 | − 0·565 | ... | ... |
| 165 | 30 Aquilæ $\delta$ ... ... | + 3·0094 | − 0·0018 | + 0·014 | − 6·740 | − 0·410 | − 0·10 | 6646 |
| 166 | ... ... .. ... | + 4·1157 | − 0·0181 | ... | − 7·252 | − 0·557 | .. | ... |
| 167 | 51 Sagittarii $\lambda^1$ ... | + 3·6510 | − 0·0100 | − 0·002 | − 7·485 | − 0·491 | 0·00 | 6704 |
| 168 | 52 Sagittarii $\lambda^2$ ... | + 3·6546 | − 0·0102 | + 0·002 | − 7·538 | − 0·490 | − 0·02 | 6706 |
| 169 | ... ... ... ... | + 4·0054 | − 0·0170 | ... | − 8·017 | − 0·533 | ... | ... |
| 170 | 50 Aquilæ $\gamma$ ... .. | + 2·8520 | − 0·0011 | + 0·001 | − 8·452 | − 0·373 | 0·00 | 6772 |
| 171 | ... ... ... ... | + 3·8325 | − 0·0160 | ... | − 8·787 | − 0·498 | ... | — |
| 172 | 53 Aquilæ $\alpha$ ... ... | + 2·8917 | − 0·0014 | + 0·036 | − 8·795 | − 0·374 | − 0·38 | 6802 |
| 173 | 60 Aquilæ $\beta$ ... .. | + 2·9457 | − 0·0033 | + 0·002 | − 9·146 | − 0·378 | + 0·47 | 6833 |
| 174 | 9208 Taylor ... ... | + 3·8161 | − 0·0175 | ... | − 9·690 | − 0·483 | ... | 6877 |
| 175 | 5 Capricorni $\alpha^1$ .. | + 3·3316 | − 0·0084 | − 0·002 | − 10·775 | − 0·406 | 0·00 | 6972 |

142, 147.—Proper motions adopted from Mr. Stone's list in Vol. 49 "*Memoirs of the Royal Astronomical Society.*"

*Mean Positions of Stars for 1862 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 176 | 6 Capricorni α² ... ... | 5·0 | ... | 20 | 10 | 23·66 | 102 | 58 | 11·7 | 3 | 0·67 |
| 177 | 39095 Lalande ... ... | 8·0 | 1 | 20 | 14 | 34·16 | 106 | 15 | 51·4 | 3 | 0·61 |
| 178 | ... ... ... ... | 8·5 | 1 | 20 | 16 | 43·30 | 121 | 12 | 10·2 | 1 | 0·64 |
| 179 | 11 Capricorni ρ ... ... | 5·0 | ... | 20 | 20 | 59·04 | 108 | 16 | 2·0 | 4 | 0·64 |
| 180 | ... ... ... ... | 8·0 | 1 | 20 | 26 | 13·37 | 121 | 13 | 3·2 | 1 | 0·64 |
| 181 | 14 Capricorni τ² ... .. | 5·7 | ... | 20 | 31 | 33·07 | 105 | 26 | 10·2 | 1 | 0·58 |
| 182 | ... ... ... ... | 8·0 | 1 | 20 | 35 | 48·56 | 123 | 58 | 55·6 | 1 | 0·64 |
| 183 | 50 Cygni α... ... ... | 1·7 | ... | 20 | 36 | 43·61 | 45 | 12 | 41·5 | 5 | 0·62 |
| 184 | ... ... ... ... | 8·0 | 1 | 20 | 43 | 29·30 | 124 | 58 | 32·5 | 1 | 0·64 |
| 185 | 32 Vulpeculæ ... ... | 4·7 | ... | 20 | 48 | 40·75 | 62 | 27 | 56·8 | 2 | 0·62 |
| 186 | ... ... ... ... | 8·0 | 1 | 20 | 51 | 28·75 | 126 | 38 | 27·9 | 1 | 0·64 |
| 187 | 23 Capricorni θ ... ... | 5·3 | ... | 20 | 58 | 11·12 | 107 | 46 | 42·4 | 1 | 0·60 |
| 188 | ... ... ... ... | 8·5 | 1 | 20 | 59 | 34·54 | 129 | 1 | 55·3 | 1 | 0·64 |
| 189 | 13 Aquarii ν ... ... | 4·8 | ... | 21 | 2 | 4·41 | 101 | 55 | 42·3 | 3 | 0·64 |
| 190 | 64 Cygni ζ... ... ... | 3·6 | ... | 21 | 7 | 3·74 | 60 | 20 | 15·7 | 5 | 0·72 |
| 191 | ... ... ... ... | 8·0 | 1 | 21 | 10 | 53·55 | 129 | 32 | 25·0 | 1 | 0·64 |
| 192 | 22 Aquarii β ... ... | 3·2 | ... | 21 | 24 | 17·53 | 96 | 10 | 36·2 | 4 | 0·75 |
| 193 | ... ... ... ... | 9·0 | ... | 21 | 29 | 47·18 | 98 | 25 | 59·4 | 2 | 0·58 |
| 194 | 23 Aquarii ξ ... ... | 5·3 | ... | 21 | 30 | 24·08 | 98 | 28 | 16·2 | 2 | 0·65 |
| 195 | 8 Pegasi ε ... ... ... | 3·3 | ... | 21 | 37 | 24·43 | 80 | 45 | 21·5 | 5 | 0·73 |
| 196 | 49 Capricorni δ ... ... | 3·7 | ... | 21 | 39 | 25·10 | 106 | 45 | 5·5 | 1 | 0·68 |
| 197 | 16 Pegasi ... ... ... | 5·5 | ... | 21 | 46 | 47·11 | 64 | 43 | 22·2 | 6 | 0·76 |
| 198 | 31 Aquarii ο ... ... | 4·7 | ... | 21 | 56 | 10·36 | 92 | 49 | 12·8 | 1 | 0·76 |
| 199 | 34 Aquarii α ... ... | 3·0 | ... | 21 | 58 | 41·58 | 90 | 59 | 20·4 | 7 | 0·72 |
| 200 | 43 Aquarii θ ... ... | 5·0 | ... | 22 | 9 | 32·05 | 98 | 28 | 8·3 | 5 | 0·75 |
| 201 | 35 Aquarii ζ ... ... | 5·0 | ... | 22 | 21 | 43·40 | 90 | 43 | 28·4 | 1 | 0·83 |
| 202 | ... ... ... ... | 9·0 | ... | 22 | 21 | 45·03 | 100 | 38 | 23·4 | 2 | 0·64 |
| 203 | 150 R. P. L. ... ... | 5·5 | ... | 22 | 23 | 45·67 | 4 | 35 | 19·1 | 8 | 0·77 |
| 204 | 62 Aquarii η ... ... | 4·3 | ... | 22 | 28 | 15·85 | 90 | 49 | 40·3 | 16 | 0·77 |
| 205 | 153 R. P. L. ... | 7·6 | ... | 22 | 29 | 50·56 | 2 | 37 | 14·5 | 5 | 0·85 |
| 206 | 42 Pegasi ζ ... ... | 4·7 | ... | 22 | 34 | 34·73 | 79 | 53 | 16·6 | 10 | 0·75 |
| 207 | XXII. 844 W. B. R. ... | 9·0 | ... | 22 | 40 | 28·04 | 87 | 49 | 19·8 | 1 | 0·79 |
| 208 | 24 Piscis Australis α ... | 1·3 | ... | 22 | 50 | 1·02 | 120 | 21 | 10·1 | 13 | 0·77 |
| 209 | ... ... ... ... | 9·3 | ... | 22 | 51 | 44·47 | 85 | 27 | 8·7 | 1 | 0·73 |
| 210 | 4 Piscium β ... ... | 4·7 | ... | 22 | 56 | 51·16 | 86 | 55 | 20·0 | 2 | 0·72 |

177.—Comparison Star for Hestia in 1861……………183.—Deneb…………208.—Fomalhaut.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 176 | 6 Capricorni $\alpha^{1}$ .. | + 3·3314 | − 0·0094 | + 0·001 | − 10·806 | − 0·403 | 0·00 | 6974 |
| 177 | 39095 Lalande ... | + 3·3969 | − 0·0100 | ... | − 11·113 | − 0·408 | ... | ... |
| 178 | ... ... ... ... | + 3·7420 | − 0·0191 | ... | − 11·267 | − 0·447 | ... | ... |
| 179 | 11 Capricorni ρ ... | + 3·4324 | − 0·0115 | − 0·006 | − 11·575 | − 0·403 | + 0·01 | 7042 |
| 180 | ... ... ... ... | + 3·7230 | − 0·0200 | ... | − 11·944 | − 0·431 | ... | ... |
| 181 | 14 Capricorni $\tau^{1}$ ... | + 3·3634 | − 0·0105 | − 0·002 | − 12·317 | − 0·382 | + 0·03 | 7127 |
| 182 | ... ... ... ... | + 3·7723 | − 0·0231 | ... | − 12·608 | − 0·423 | ... | ... |
| 183 | 50 Cygni α ... ... | + 2·0433 | + 0·0021 | − 0·002 | − 12·671 | − 0·226 | 0·00 | 7171 |
| 184 | ... ... ... ... | + 3·7794 | − 0·0247 | ... | − 13·123 | − 0·410 | ... | ... |
| 185 | 32 Vulpeculæ .. | + 2·5554 | + 0·0026 | − 0·002 | − 13·164 | − 0·270 | 0·00 | 7256 |
| 186 | ... ... ... .. | + 3·8001 | − 0·0272 | ... | − 13·644 | − 0·400 | ... | ... |
| 187 | 23 Capricorni θ ... | + 3·3775 | − 0·0128 | + 0·004 | − 14·068 | − 0·344 | + 0·05 | 7322 |
| 188 | ... ... ... ... | + 3·8399 | − 0·0306 | ... | − 14·155 | − 0·390 | ... | ... |
| 189 | 13 Aquarii ν ... | + 3·2699 | − 0·0098 | + 0·001 | − 14·309 | − 0·328 | + 0·01 | 7344 |
| 190 | 64 Cygni ζ ... ... | + 2·5504 | + 0·0038 | − 0·003 | − 14·612 | − 0·248 | + 0·07 | 7368 |
| 191 | ... ... ... ... | + 3·8146 | − 0·0320 | ... | − 14·839 | − 0·363 | ... | ... |
| 192 | 22 Aquarii β .. | + 3·1628 | − 0·0071 | − 0·001 | − 15·602 | − 0·282 | 0·00 | 7478 |
| 193 | ... ... ... ... | + 3·1928 | − 0·0082 | ... | − 15·900 | − 0·270 | ... | ... |
| 194 | 23 Aquarii ξ ... .. | + 3·1929 | − 0·0063 | + 0·004 | − 15·933 | − 0·276 | + 0·04 | 7514 |
| 195 | 8 Pegasi ε ... .. | + 2·9452 | − 0·0005 | + 0·003 | − 16·298 | − 0·242 | 0·00 | 7561 |
| 196 | 49 Capricorni δ ... | + 3·3037 | − 0·0128 | + 0·014 | − 16·399 | − 0·270 | + 0·28 | 7590 |
| 197 | 16 Pegasi ... ... | + 2·7253 | + 0·0050 | + 0·001 | − 16·763 | − 0·210 | + 0·01 | 7627 |
| 198 | 31 Aquarii ο... ... | + 3·1059 | − 0·0051 | ... | − 17·200 | − 0·226 | ... | 7672 |
| 199 | 34 Aquarii α... .. | + 3·0836 | − 0·0041 | − 0·003 | − 17·312 | − 0·219 | + 0·02 | 7698 |
| 200 | 43 Aquarii θ... ... | + 3·1642 | − 0·0075 | + 0·006 | − 17·771 | − 0·205 | + 0·03 | 7773 |
| 201 | 55 Aquarii ζ ... ... | + 3·0791 | − 0·0033 | + 0·009 | − 18·240 | − 0·179 | − 0·03 | 7832 |
| 202 | ... ... ... ... | + 3·1765 | − 0·0085 | ... | − 18·210 | − 0·189 | ... | ... |
| 203 | 150 R. P. L. ... .. | − 3·7192 | − 1·1627 | + 0·048 | − 18·313 | + 0·229 | − 0·05 | 7851 |
| 204 | 62 Aquarii η... .. | + 3·0795 | − 0·0031 | + 0·003 | − 18·470 | − 0·166 | + 0·03 | 7868 |
| 205 | 153 R. P. L. .. .. | − 8·1315 | − 3·7919 | ... | − 18·525 | + 0·462 | ... | ... |
| 206 | 42 Pegasi ζ ... ... | + 2·9851 | + 0·0023 | + 0·001 | − 18·680 | − 0·149 | 0·00 | 7908 |
| 207 | XXII 844 W. B. E. ... | + 3·0547 | − 0·0012 | ... | − 18·860 | − 0·143 | ... | ... |
| 208 | 24 Piscis Aust. α .. | + 3·3073 | − 0·0210 | + 0·022 | − 19·128 | − 0·135 | + 0·18 | 7992 |
| 209 | ... ... ... .. | + 3·0408 | + 0·0006 | ... | − 19·172 | − 0·122 | ... | ... |
| 210 | 4 Piscium β ... .. | + 3·0524 | + 0·0001 | + 0·001 | − 19·300 | − 0·112 | + 0·02 | 8031 |

*Mean Positions of Stars for 1862 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. h. | m. | s. | Mean Polar Distance. ° | ′ | ″ | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 211 | 53 Pegasi β Var. 1. ... | 2·5 | ... | 22 | 57 | 5·33 | 62 | 39 | 53·5 | 1 | 0·85 |
| 212 | 54 Pegasi α ... ... | 2·0 | ... | 22 | 57 | 53·25 | 75 | 32 | 12·5 | 16 | 0·75 |
| 213 | 6 Piscium γ ... ... | 4·2 | ... | 23 | 10 | 0·65 | 87 | 28 | 16·2 | 18 | 0·78 |
| 214 | ... ... ... ... | 9·3 | ... | 23 | 10 | 50·17 | 127 | 25 | 13·4 | 1 | 0·78 |
| 215 | ... ... ... ... | 8·0 | 1 | 23 | 11 | 30·98 | 129 | 58 | 31·4 | 1 | 0·76 |
| 216 | ... ... ... ... | 8·0 | 1 | 23 | 12 | 6·44 | 127 | 25 | 28·9 | 1 | 0·78 |
| 217 | 8 Piscium κ ... ... | 5·7 | ... | 23 | 19 | 51·44 | 80 | 29 | 58·5 | 12 | 0·79 |
| 218 | 10 Piscium θ ... ... | 5·0 | ... | 23 | 20 | 58·00 | 84 | 22 | 42·9 | 1 | 0·61 |
| 219 | 158 R. P. L. ... ... | 5·7 | ... | 23 | 27 | 50·26 | 3 | 27 | 14·0 | 2 | 0·78 |
| 220 | 17 Piscium ι ... ... | 4·5 | ... | 23 | 32 | 51·16 | 85 | 7 | 16·6 | 10 | 0·80 |
| 221 | 9583 Lacaille ... ... | 8·0 | 1 | 23 | 38 | 43·09 | 128 | 44 | 33·2 | 1 | 0·84 |
| 222 | ... ... ... ... | 8·5 | 1 | 23 | 40 | 57·87 | 128 | 47 | 18·4 | 1 | 0·75 |
| 223 | — Sculptoris δ ... ... | 4·3 | ... | 23 | 41 | 43·91 | 118 | 53 | 36·1 | 7 | 0·78 |
| 224 | ... ... ... ... | 8·5 | ... | 23 | 41 | 51·93 | 142 | 5 | 4·4 | 1 | 0·82 |
| 225 | R Cassiopeæ Var. 3. ... | 6·0 | 1 | 23 | 51 | 24·70 | 30 | 22 | 48·8 | 2 | 0·83 |
| 226 | ... ... ... ... | 9·3 | ... | 23 | 51 | 52·94 | 143 | 16 | 38·8 | 1 | 0·82 |
| 227 | 28 Piscium ω ... ... | 4·3 | ... | 23 | 52 | 13·54 | 83 | 54 | 2·2 | 9 | 0·80 |

211.—Scheat.—Supposed to vary irregularly between 2·2 and 2·7 magnitudes.
212.—Markab.
225.—R Cassiopeæ Var. 3.—Period 426 days.—Range—5th. magnitude to invisibility.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 211 | 53 Pegasi β Var. 1 ... | + 2·8848 | + 0·0117 | + 0·016 | − 19·305 | − 0·106 | − 0·17 | 8032 |
| 212 | 54 Pegasi α ... ... | + 2·9797 | + 0·0056 | + 0·003 | − 19·323 | − 0·107 | + 0·02 | 8034 |
| 213 | 6 Piscium γ ... ... | + 3·0592 | + 0·0005 | + 0·047 | − 19·581 | − 0·087 | + 0·01 | 8105 |
| 214 | ... ... ... ... | + 3·2892 | − 0·0264 | ... | − 19·598 | − 0·093 | ... | ... |
| 215 | ... ... ... ... | + 3·3073 | − 0·0290 | ... | − 19·608 | − 0·098 | ... | ... |
| 216 | ... ... ... ... | + 3·2843 | − 0·0263 | ... | − 19·618 | − 0·087 | ... | ... |
| 217 | 8 Piscium κ ... ... | + 3·0699 | 0·0000 | + 0·005 | − 19·748 | − 0·069 | + 0·12 | 8169 |
| 218 | 10 Piscium θ .. ... | + 3·0498 | + 0·0026 | − 0·011 | − 19·765 | − 0·067 | + 0·06 | 8177 |
| 219 | 158 R. P. L. ... ... | − 0·0268 | − 0·4971 | + 0·084 | − 19·858 | + 0·010 | − 0·01 | 8218 |
| 220 | 17 Piscium ι ... ... | + 3·0584 | + 0·0030 | + 0·025 | − 19·916 | − 0·042 | + 0·45 | 8233 |
| 221 | 9583 Lacaille ... | + 3·1715 | − 0·0248 | ... | − 19·969 | − 0·034 | ... | ... |
| 222 | ... ... ... ... | + 3·1611 | − 0·0244 | ... | − 19·987 | − 0·029 | ... | ... |
| 223 | — Sculptoris δ ... | + 3·1307 | − 0·0161 | + 0·003 | − 19·992 | − 0·026 | + 0·07 | 8275 |
| 224 | ... ... ... ... | + 3·2078 | − 0·0408 | ... | − 19·993 | − 0·028 | ... | ... |
| 225 | R Cassiop. Var. 3 ... | + 3·0110 | + 0·0364 | ... | − 20·041 | − 0·007 | ... | ... |
| 226 | ... ... ... ... | + 3·1356 | − 0·0402 | ... | − 20·042 | − 0·007 | ... | ... |
| 227 | 28 Piscium ω ... | + 3·0671 | + 0·0047 | + 0·010 | − 20·044 | − 0·005 | + 0·13 | 8331 |

211.—Proper Motions adopted from the "*British Association Catalogue.*"
223.—Proper Motions deduced from "*Nautical Almanac for 1862.*"

# SEPARATE RESULTS

OF

# OBSERVATIONS

MADE WITH THE

# MADRAS MERIDIAN CIRCLE

IN THE YEAR

1863.

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 1 | 21 Andromedæ α ... | Oct. | 29 | R | 0 | 1 | 18·56 | ... | 61 | 39 | 59·3 | |
| | ... ... ... | ,, | 30 | R | | 1 | 18·68 | .. | | 39 | 59·1 | ... |
| | ... ... ... | Nov. | 7 | M | | 1 | 18·74 | ... | | 39 | 58·9 | ... |
| | ... ... ... | ,, | 13 | M | | 1 | 18·61 | ... | | 40 | 0·5 | .. |
| 2 | ... ... ... | Oct. | 10 | M | 0 | 6 | 3·70 | ... | 148 | 40 | 35·9 | 6·2 |
| | .. ... .. | Nov. | 11 | M | | 6 | 3·57 | ... | | 40 | 37·1 | 6·3 |
| 3 | 88 Pegasi γ ... ... | Aug. | 29 | R | 0 | 6 | 10·93 | ... | 75 | 34 | 43·2 | ... |
| | ... ... ... | Oct. | 30 | R | | 6 | 11·11 | ... | | 34 | 43·4 | ... |
| | ... ... ... | ,, | 31 | R | | 6 | 10·95 | ... | | 34 | 42·8 | .. |
| | .. ... ... | Nov. | 6 | M | | 6 | 10·95 | ... | | 34 | 44·0 | ... |
| | ... .. ... | ,, | 9 | M | | 6 | 10·94 | ... | | 34 | 43·3 | ... |
| | ... ... ... | ,, | 13 | M | | 6 | 10·93 | ... | | 34 | 44·0 | ... |
| 4 | ... ... ... | Oct. | 17 | R | 0 | 9 | 19·71 | 5 | 149 | 32 | 9·0 | 8·7 |
| | ... ... ... | Nov. | 4 | M | | 9 | 20·07 | .. | | 32 | 13·7 | 9·0 |
| 5 | ... ... .. | Nov. | 2 | M | 0 | 12 | 44·45 | ... | 150 | 26 | 58·0 | 9·4 |
| 6 | 41 Piscium d... ... | Sep. | 26 | R | 0 | 13 | 32·96 | ... | 82 | 34 | 16·0 | ... |
| 7 | R Andromedæ Var. 1. | Aug. | 29 | R | 0 | 16 | 48·24 | ... | 52 | 10 | 54·0 | 9·5 |
| | ... ... ... | ,, | 31 | R | | 16 | 48·19 | ... | | 10 | 55·2 | 9·4 |
| | ... ... ... | Oct. | 17 | R | | 16 | 48·30 | .. | | 10 | 54·9 | 7·8 |
| | ... ... .. | Nov. | 3 | M | | 16 | 47·82 | .. | | 10 | 56·6 | 7·7 |
| | .. ... ... | ,, | 6 | M | | 16 | 48·26 | ... | | 10 | 56·3 | 7·8 |
| 8 | ... ... ... | Oct. | 10 | M | 0 | 17 | 34·80 | .. | 149 | 35 | 28·0 | 10·0 |
| | ... ... ... | ,, | 29 | R | | 17 | 34·80 | 5 | | 35 | 30·6 | 9·8 |
| | ... ... ... | Nov. | 4 | M | | 17 | 34·89 | .. | | 35 | 30·4 | 9·7 |
| | ... ... ... | ,, | 13 | M | | 17 | 34·43 | . | | 35 | 29·0 | 9·4 |
| 9 | 45 Piscium ... ... | Sep. | 26 | R | 0 | 18 | 38·23 | ... | 83 | 4 | 0·1 | ... |
| | ... ... ... | Nov. | 20 | R | | 18 | 38·19 | 6 | | 3 | 59·8 | .. |
| | ... ... .. | ,, | 21 | R | | 18 | 38·16 | .. | | 3 | 59·5 | ... |
| 10 | 12 Ceti ... ... | Oct. | 31 | R | 0 | 23 | 2·90 | ... | 94 | 42 | 54·1 | .. |
| | ... ... ... | Nov. | 7 | M | | 23 | 2·78 | .. | | 42 | 53·8 | ... |
| | ... .. ... | ,, | 9 | M | | 23 | 2·81 | ... | | 42 | 54·3 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 10 | 12 Ceti ... ... | Nov. | 11 | M | 0 | 23 | 2·78 | ... | 94 | 42 | 54·6 | ... |
| | ... ... ... | " | 14 | M | | 23 | 2·83 | ... | | 42 | 55·2 | ... |
| | ... ... ... | " | 18 | R | | 23 | 2·77 | ... | | 42 | 52·9 | .. |
| 11 | ... ... ... | Nov. | 23 | R | 0 | 25 | 18·92 | 5 | 76 | 9 | 33·2 | 10·5 |
| 12 | ... ... ... | Oct. | 10 | M | 0 | 28 | 50·71 | ... | 89 | 7 | 55·6 | 9·2 |
| | ... ... ... | " | 29 | R | | 28 | 50·72 | 5 | | 7 | 56·2 | 9·8 |
| | ... ... ... | " | 30 | R | | 28 | 50·65 | 5 | | 7 | 55·8 | ... |
| | ... ... ... | " | 31 | R | | 28 | 50·61 | ... | | 7 | 54·5 | 9·7 |
| | ... ... ... | Nov. | 2 | M | | 28 | 50·62 | ... | | 7 | 54·8 | 9·7 |
| | ... ... ... | " | 4 | M | | 28 | 50·81 | ... | | 7 | 55·9 | 9·5 |
| | ... ... ... | " | 5 | M | | 28 | 50·50 | ... | | 7 | 56·1 | 9·4 |
| 13 | ... ... ... | Aug. | 29 | R | 0 | 30 | 44·80 | 4 | 89 | 7 | 52·9 | 9·8 |
| | ... ... ... | " | 31 | R | | 30 | 44·78 | 5 | | 7 | 56·5 | 9·9 |
| | ... ... ... | Oct. | 17 | R | | 30 | 44·97 | 5 | | 7 | 54·4 | 9·2 |
| | ... ... ... | " | 29 | R | | 30 | 44·87 | ... | | 7 | 54·0 | 9·9 |
| | ... ... ... | " | 30 | R | | 30 | 45·13 | 5 | | 7 | 53·8 | ... |
| | ... ... ... | " | 31 | R | | 30 | 44·75 | ... | | 7 | 53·8 | 9·7 |
| | ... ... ... | Nov. | 4 | M | | 30 | 44·74 | ... | | 7 | 55·6 | 9·6 |
| | ... ... ... | " | 5 | M | | 30 | 44·72 | ... | | 7 | 55·1 | 9·5 |
| | ... ... ... | " | 6 | M | | 30 | 44·60 | ... | | 7 | 53·7 | 9·3 |
| | ... ... ... | " | 7 | M | | 30 | 44·77 | ... | | 7 | 53·0 | 9·3 |
| 14 | 18 Cassiopeæ α Var. 1. | Dec. | 7 | M | 0 | 32 | 45·05 | ... | 34 | 12 | 54·3 | ... |
| | | " | 8 | M | | 32 | 45·08 | ... | | 12 | 53·9 | .. |
| 15 | 1097 Lalande ... | Nov. | 3 | M | 0 | 34 | 32·78 | ... | 89 | 0 | 17·3 | 8·2 |
| | ... ... ... | " | 9 | M | | 34 | 32·82 | ... | | 0 | 16·8 | 8·0 |
| | ... ... ... | " | 11 | M | | 34 | 32·63 | .. | | 0 | 17·1 | 8·0 |
| | ... ... ... | " | 13 | M | | 34 | 32·81 | ... | | 0 | 17·9 | 8·0 |
| | ... ... ... | " | 14 | M | | 34 | 32·71 | ... | | 0 | 17·9 | 8·0 |
| | ... ... ... | " | 20 | R | | 34 | 32·77 | 5 | | 0 | 16·7 | 8·2 |
| 16 | 1123 Lalande ... | Oct. | 30 | R | 0 | 35 | 38·94 | ... | 89 | 3 | 21·6 | 9·2 |
| | ... ... ... | " | 31 | R | | 35 | 38·84 | ... | | 3 | 20·8 | 9·1 |
| | ... ... ... | Nov. | 11 | M | | 35 | 38·91 | 4 | | 3 | 21·5 | 9·0 |
| | ... ... ... | " | 14 | M | | 35 | 39·00 | 5 | | 3 | 23·4 | 8·9 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 16 | 1123 Lalande ... | Nov. | 20 | R | 0 | 35 | 38·88 | 5 | 89 | 3 | 21·4 | 9 0 |
| | ... ... ... | „ | 21 | R | | 35 | 38·80 | 5 | | 3 | 21·1 | 8·9 |
| | ... . ... | „ | 23 | R | | 35 | 38 86 | ... | | 3 | 22·5 | 8 7 |
| | ... ... ... | „ | 24 | R | | 35 | 38 95 | 6 | | 3 | 20·9 | 8·8 |
| 17 | 16 Ceti β ... ... | Nov. | 18 | R | 0 | 36 | 42·64 | ... | 108 | 44 | 19·8 | .. |
| | ... ... ... | Dec. | 30 | M | | 36 | 42·73 | ... | | 44 | 22·0 | ... |
| 18 | 1108 Lalande ... | Oct. | 28 | R | 0 | 38 | 3·46 | ... | 88 | 56 | 36 3 | 8·7 |
| | ... ... ... | „ | 29 | R | | 38 | 3 41 | 5 | | 56 | 36·9 | 8 3 |
| | ... ... ... | Nov. | 4 | M | | 38 | 3·46 | 3 | | 56 | 38·1 | 8 9 |
| | ... .. ... | „ | 6 | M | | 38 | 3·61 | .. | | 56 | 37·6 | 8·9 |
| | ... ... ... | Dec. | 8 | M | | 38 | 3·45 | 5 | | 56 | 37·6 | 8·9 |
| | ... ... ... | „ | 15 | M | | 38 | 3·53 | ... | | 56 | 36·1 | 8·9 |
| | ... ... | „ | 18 | R | | 38 | 3·58 | 4 | | 56 | 36·2 | 9 2 |
| | ... ... .. | „ | 22 | R | | 38 | 3·52 | 4 | | 56 | 37·3 | ... |
| | ... ... ... | „ | 23 | R | | 38 | 3·51 | 4 | | 56 | 36·5 | 8 7 |
| 19 | 0.658 W. B. E. ... | Oct. | 17 | R | 0 | 38 | 34·93 | ... | 82 | 2 | 31·3 | 9 3 |
| | ... ... ... | „ | 30 | R | | 38 | 34·99 | 6 | | 2 | 33·8 | 9·5 |
| | ... ... ... | „ | 31 | R | | 38 | 34·85 | ... | | 2 | 31·9 | 9·3 |
| | ... .. ... | Nov. | 5 | M | | 38 | 34 89 | ... | | 2 | 31·4 | 10·0 |
| | ... ... ... | „ | 23 | R | | 38 | 35·06 | 5 | | 2 | 32 2 | 9 5 |
| | ... ... .. | „ | 24 | R | | 38 | 34·92 | 5 | | 2 | 33·3 | 9·5 |
| | ... ... | Dec. | 18 | R | | 38 | 34·98 | 4 | | 2 | 31 7 | 9·7 |
| | ... ... .. | „ | 22 | R | | 38 | 34·93 | 4 | | 2 | 32·6 | ... |
| | ... .. ... | „ | 23 | R | | 38 | 34·94 | 4 | | 2 | 33 1 | 9·5 |
| 20 | 63 Piscium δ .. | Aug. | 31 | R | 0 | 41 | 34·52 | 5 | 83 | 9 | 41·0 | .. |
| | ... ... | Nov. | 20 | R | | 41 | 34·58 | | | 9 | 40 9 | — |
| 21 | ... ... .. | Oct. | 29 | R | 0 | 41 | 37·12 | 5 | 89 | 6 | 55·9 | 9·5 |
| | ... ... .. | Nov. | 2 | M | | 41 | 37·05 | 6 | | 6 | 56·1 | 9·5 |
| | .. .. ... | Dec. | 7 | M | | 41 | 36 97 | ... | | 6 | 54 5 | 9·0 |
| | — . .. | „ | 14 | M | | 41 | 37·01 | 4 | | 6 | 55·9 | 9·1 |
| | ... — ... | „ | 16 | R | | 41 | 37·00 | 4 | | 6 | 56 2 | — |
| | . .. | „ | 17 | R | | 41 | 37·04 | 6 | | 6 | 57 1 | 9 5 |
| 22 | — . ... | Aug. | 29 | R | 0 | 42 | 6·11 | 5 | 88 | 49 | 49·7 | 10·0 |
| | ... | Oct. | 10 | M | | 42 | 5 86 | ... | | 49 | 48·6 | 10·0 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 22 | ... ... ... | Oct. | 26 | R | 0 | 42 | 6·11 | 5 | 88 | 49 | 49·1 | 9·8 |
| | ... ... ... | ,, | 31 | R | | 42 | 6·01 | 4 | | 49 | 48·5 | 9·7 |
| | ... ... ... | Nov. | 7 | M | | 42 | 5·70 | ... | | 49 | 47·8 | 10·0 |
| | ... ... ... | ,, | 9 | M | | 42 | 6·03 | ... | | 49 | 48·1 | 10·0 |
| | ... ... ... | ,, | 23 | R | | 42 | 6·04 | 5 | | 49 | 48·5 | 9·9 |
| | ... ... ... | Dec. | 15 | M | | 42 | 6·09 | ... | | 49 | 46·8 | 10·0 |
| | ... ... ... | ,, | 18 | R | | 42 | 5·96 | 6 | | 49 | 49·2 | 10·0 |
| | ... ... ... | ,, | 19 | R | | 42 | 5·94 | ... | | 49 | 49·4 | ... |
| 23 | 0 806 W. B. E. ... | Oct. | 26 | R | 0 | 46 | 36·92 | ... | 88 | 50 | 6·3 | 9·1 |
| | ... ... ... | Nov. | 3 | M | | 46 | 36·76 | ... | | 50 | 5·6 | 10·0 |
| | ... ... ... | ,, | 4 | M | | 46 | 36·92 | ... | | 50 | 5·5 | 10·0 |
| | ... ... ... | ,, | 6 | M | | 46 | 36·69 | ... | | 50 | 7·7 | 10·0 |
| | ... ... ... | ,, | 13 | M | | 46 | 36·82 | ... | | 50 | 6·7 | 9·5 |
| | ... ... ... | ,, | 14 | M | | 46 | 36·73 | ... | | 50 | 6·8 | 9·5 |
| | ... ... ... | ,, | 24 | R | | 46 | 36·97 | 5 | | 50 | 5·7 | 9·6 |
| 24 | ... ... ... | Oct. | 1 | M | 0 | 47 | 52·11 | ... | 133 | 47 | 34·4 | ... |
| 25 | 1638 Lalande ... | Oct. | 29 | R | 0 | 50 | 37·45 | ... | 88 | 57 | 24·6 | 7·5 |
| | ... ... ... | ,, | 30 | R | | 50 | 37·52 | 5 | | 57 | 24·8 | 7·8 |
| | ... ... ... | Nov. | 9 | M | | 50 | 37·49 | ... | | 57 | 25·3 | 7·8 |
| | ... ... ... | ,, | 11 | M | | 50 | 37·42 | ... | | 57 | 25·1 | 7·8 |
| | ... ... ... | ,, | 18 | R | | 50 | 37·38 | 6 | | 57 | 24·7 | ... |
| | ... ... ... | Dec. | 8 | M | | 50 | 37·43 | ... | | 57 | 25·6 | 7·8 |
| | ... ... ... | ,, | 10 | M | | 50 | 37·54 | ... | | 57 | 24·7 | 7·8 |
| 26 | 1639 Lalande ... | Oct. | 28 | R | 0 | 50 | 39·25 | 5 | 88 | 38 | 55·3 | 9·2 |
| | ... ... ... | Nov. | 2 | M | | 50 | 39·48 | ... | | 38 | 57·1 | 8·9 |
| | ... ... ... | ,, | 20 | R | | 50 | 39·27 | ... | | 38 | 54·7 | 8·7 |
| | ... ... ... | ,, | 23 | R | | 50 | 39·38 | ... | | 38 | 53·7 | ... |
| | ... ... ... | ,, | 28 | R | | 50 | 39·51 | 5 | | 38 | 54·2 | .. |
| | ... ... ... | Dec. | 7 | M | | 50 | 39·32 | ... | | 38 | 54·4 | 8·9 |
| | ... ... ... | ,, | 14 | M | | 50 | 39·16 | ... | | 38 | 55·1 | 8·9 |
| 27 | 271 Lacaille... ... | Oct. | 9 | M | 0 | 52 | 39·83 | ... | 151 | 26 | 17·1 | 7·8 |
| 28 | 1784 Lalande ... | Oct. | 29 | R | 0 | 54 | 55·91 | ... | 88 | 12 | 48·6 | 8·1 |
| | ... ... ... | Nov. | 3 | M | | 54 | 55·96 | ... | | 12 | 48·9 | 8·0 |
| | ... ... ... | ,, | 5 | M | | 54 | 55·91 | ... | | 12 | 47·4 | 8·0 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 28 | 1784 Lalande ... | Oct. | 6 | M | 0 | 54 | 55·82 | ... | 88 | 12 | 49·4 | 8·0 |
| | ... ... ... | ,, | 7 | M | | 54 | 55·91 | ... | | 12 | 47·3 | 8·0 |
| | ... ... ... | ,, | 23 | R | | 54 | 55·93 | 5 | | 12 | 48·3 | 8·3 |
| | ... ... ... | ,, | 24 | R | | 54 | 55·99 | 5 | | 12 | 48·5 | 8·2 |
| 29 | 71 Piscium ε... ... | Dec. | 16 | R | 0 | 55 | 50·12 | ... | 82 | 50 | 53·8 | ... |
| | ... ... ... | ,, | 17 | R | | 55 | 50·12 | ... | | 50 | 56·1 | ... |
| | ... ... ... | ,, | 18 | R | | 55 | 50·10 | ... | | 50 | 54·7 | ... |
| | ... ... ... | ,, | 19 | R | | 55 | 50·09 | ... | | 50 | 54·3 | ... |
| | ... ... ... | ,, | 21 | R | | 55 | 50·11 | ... | | 50 | 54·8 | .. |
| | ... ... ... | ,, | 23 | R | | 55 | 50·03 | ... | | 50 | 54·3 | ... |
| | ... ... ... | ,, | 24 | R | | 55 | 50·07 | ... | | 50 | 54·8 | ... |
| | ... ... ... | ,, | 25 | R | | 55 | 50·09 | ... | | 50 | 54·3 | ... |
| | ... ... ... | ,, | 26 | R | | 55 | 50·06 | ... | | 50 | 54·0 | ... |
| | ... ... ... | ,, | 29 | M | | 55 | 50·05 | ... | | 50 | 54·6 | ... |
| | ... ... ... | ,, | 30 | M | | 55 | 49·97 | ... | | 50 | 53·3 | ... |
| 30 | 1879 Lalande ... | Oct. | 28 | R | 0 | 57 | 40·70 | ... | 88 | 25 | 16·3 | 7·9 |
| | ... ... ... | ,, | 30 | R | | 57 | 40·91 | ... | | 25 | 15·1 | 8·0 |
| | ... ... ... | Nov. | 13 | M | | 57 | 40·88 | ... | | 25 | 16·8 | 7·8 |
| | ... ... ... | ,, | 14 | M | | 57 | 40·81 | ... | | 25 | 16·1 | 7·8 |
| | ... ... ... | ,, | 18 | R | | 57 | 40·71 | 4 | | 25 | 15·0 | ... |
| | ... ... ... | ,, | 20 | R | | 57 | 40·88 | ... | | 25 | 15·4 | 7·8 |
| | ... ... ... | ,, | 25 | R | | 57 | 40·82 | ... | | 25 | 14·6 | 7·9 |
| 31 | 0·1031 W. B. E. ... | Nov. | 4 | M | 0 | 59 | 4·84 | ... | 88 | 6 | 10·2 | 9·0 |
| | ... ... ... | ,, | 9 | M | | 59 | 4·87 | ... | | 6 | 8·1 | 9·0 |
| | ... ... ... | ,, | 11 | M | | 59 | 4·95 | ... | | 6 | 9·3 | 9·0 |
| | ... ... ... | ,, | 21 | R | | 59 | 4·82 | 6 | | 6 | 9·4 | 9·2 |
| | ... ... ... | ,, | 28 | R | | 59 | 4·94 | ... | | 6 | 7·1 | 9·0 |
| | ... ... ... | Dec. | 8 | M | | 59 | 4·68 | ... | | 6 | 9·9 | 9·0 |
| | ... ... ... | ,, | 9 | M | | 59 | 4·91 | ... | | 6 | 8·6 | 9·0 |
| 32 | ... ... ... | Oct. | 6 | M | 1 | 2 | 9·01 | ... | 87 | 57 | 26·8 | 10·0 |
| | ... ... ... | ,, | 8 | M | | 2 | 8·81 | ... | | 57 | 27·9 | 10·0 |
| | ... ... ... | ,, | 10 | M | | 2 | 8·76 | 3 | | 57 | 25·9 | 10·0 |
| | ... ... ... | ,, | 28 | R | | 2 | 8·98 | 5 | | 57 | 28·1 | 9·8 |
| | ... ... ... | ,, | 29 | R | | 2 | 8·96 | ... | | 57 | 28·7 | 9·4 |
| | ... ... ... | ,, | 31 | R | | 2 | 8·91 | ... | | 57 | 27·5 | 9·7 |
| | ... ... ... | Nov. | 5 | M | | 2 | 8·87 | ... | | 57 | 27·2 | 9·6 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ' | " | |
| 32 | ... ... .. | Nov. | 6 | M | 1 | 2 | 8·65 | ... | 87 | 57 | 29·1 | 9·7 |
| | .. ... ... | ,, | 23 | R | | 2 | 8·84 | 5 | | 57 | 27·6 | 10·0 |
| | ... ... ... | ,, | 24 | R | | 2 | 8·99 | 6 | | 57 | 28·2 | 9·8 |
| 33 | I. 15 W. B. E. ... | Oct. | 30 | R | 1 | 2 | 57·22 | 5 | 87 | 39 | 1·3 | 9·7 |
| | ... ... .. | Nov. | 7 | M | | 2 | 56·91 | ... | | 39 | 0·2 | 9·0 |
| | ... ... ... | ,, | 25 | R | | 2 | 57·04 | 5 | | 39 | 1·4 | 9·0 |
| | ... ... ... | Dec. | 14 | M | | 2 | 57·18 | 4 | | 39 | 2·5 | 9·0 |
| | ... ... .. | ,, | 15 | M | | 2 | 57·13 | ... | | 39 | 0·7 | 9·0 |
| | ... ... .. | ,, | 17 | R | | 2 | 57·01 | ... | | 39 | 3·3 | 9·7 |
| | ... ... ... | ,, | 18 | R | | 2 | 57·09 | ... | | 39 | 2·8 | 9·5 |
| | ... ... .. | ,, | 19 | R | | 2 | 57·08 | ... | | 39 | 1·5 | 9·9 |
| | ... ... ... | ,, | 21 | R | | 2 | 57·10 | ... | | 39 | 2·8 | 9·5 |
| 34 | 2089 Lalande .. | Nov. | 4 | M | 1 | 3 | 24·37 | ... | 88 | 10 | 34·3 | 8·9 |
| | ... ... ... | ,, | 21 | R | | 3 | 24·36 | ... | | 10 | 35·4 | 8·0 |
| | ... ... ... | ,, | 28 | R | | 3 | 24·40 | ... | | 10 | 35·2 | 8·7 |
| | ... ... ... | Dec. | 9 | M | | 3 | 24·54 | ... | | 10 | 35·4 | 8·9 |
| | ... ... .. | ,, | 23 | R | | 3 | 24·31 | 6 | | 10 | 35·1 | 9·0 |
| | ... ... ... | ,, | 24 | R | | 3 | 24·30 | 4 | | 10 | 35·1 | ... |
| | ... ... ... | ,, | 26 | R | | 3 | 24·42 | 4 | | 10 | 34·1 | ... |
| 35 | 23 Ceti ... ... | Dec. | 26 | R | 1 | 3 | 30·55 | 4 | 88 | 17 | 4·6 | .. |
| | ... ... ... | ,, | 29 | M | | 3 | 30·85 | 2 | | 17 | 6·0 | .. |
| | ... ... ... | ,, | 30 | M | | 3 | 30·60 | ... | | 17 | 6·1 | .. |
| | ... ... .. | ,, | 31 | M | | 3 | 30·53 | ... | | 17 | 6·1 | .. |
| 36 | 86 Piscium 3 ... ... | Aug. | 31 | R | 1 | 6 | 34·49 | 5 | 83 | 9 | 1·1 | ... |
| | ... ... .. | Sep. | 28 | R | | 6 | 34·50 | ... | | 9 | 0·4 | ... |
| | ... ... ... | Dec. | 19 | R | | 6 | 34·45 | ... | | 9 | 0·6 | .. |
| 37 | I. 101 W. B. E. ... | Oct. | 28 | R | 1 | 7 | 42·79 | ... | 87 | 54 | 19·1 | 9·2 |
| | ... ... ... | Nov. | 18 | R | | 7 | 42·70 | ... | | 54 | 16·5 | ... |
| | ... ... ... | ,, | 23 | R | | 7 | 42·66 | ... | | 54 | 18·2 | 8·2 |
| | ... ... ... | ,, | 24 | R | | 7 | 42·67 | 6 | | 54 | 17·5 | 9·0 |
| | ... .. ... | ,, | 28 | R | | 7 | 42·75 | ... | | 54 | 17·7 | 8·9 |
| | ... ... .. | Dec. | 10 | M | | 7 | 42·70 | ... | | 54 | 17·5 | 9·0 |
| | ... .. ... | ,, | 14 | M | | 7 | 42·73 | ... | | 54 | 19·5 | 9·0 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | " | ' | |
| 38 | 1 Ursæ Minoris α s.p. | Apl. | 8 | M | 1 | 8 | 59·31 | 3 | 1 | 25 | 15·1 | ... |
| | ... ... s.p. | ,, | 10 | M | | 8 | 59·82 | 3 | | 25 | 17·0 | ... |
| | ... ... s.p. | ,, | 13 | M | | 8 | 59·53 | 3 | | 25 | 15·4 | ... |
| | ... ... s.p. | ,, | 15 | M | | 9 | 0·06 | 3 | | 25 | 14·4 | ... |
| | ... ... s.p. | May | 9 | M | | 8 | 59·61 | 3 | | 25 | 15·6 | ... |
| | ... ... s.p. | ,, | 19 | R | | 8 | 59·69 | 3 | | 25 | 15·3 | .. |
| | ... ... s.p. | ,, | 26 | R | | 8 | 59·95 | 3 | | 25 | 15·4 | ... |
| | ... ... ... | Dec. | 12 | M | | 8 | 59·64 | 2 | | 25 | 14·5 | ... |
| | ... ... ... | ,, | 17 | R | | 8 | 59·13 | 2 | | 25 | 16·4 | ... |
| 39 | ... ... ... | Oct. | 29 | R | 1 | 9 | 13·09 | ... | 87 | 42 | 24·2 | 9·7 |
| | ... ... ... | ,, | 30 | R | | 9 | 13·19 | 5 | | 42 | 24·6 | 9·8 |
| | ... ... ... | ,, | 31 | R | | 9 | 12·97 | ... | | 42 | 25·0 | 9·6 |
| | ... ... ... | Nov. | 9 | M | | 9 | 13·05 | ... | | 42 | 24·3 | 9·6 |
| | ... ... ... | ,, | 11 | M | | 9 | 12·95 | ... | | 42 | 24·7 | 10·0 |
| | ... ... ... | ,, | 13 | M | | 9 | 12·88 | ... | | 42 | 24·9 | 10·0 |
| | ... ... ... | ,, | 14 | M | | 9 | 12·92 | ... | | 42 | 24·6 | 9·7 |
| | ... ... ... | ,, | 21 | R | | 9 | 13·03 | ... | | 42 | 23·9 | 9·8 |
| 40 | 45 Ceti θ ... ... | Aug. | 31 | R | 1 | 17 | 10·50 | ... | 98 | 53 | 29·0 | ... |
| | ... ... ... | Oct. | 29 | R | | 17 | 10·51 | ... | | 53 | 29·3 | ... |
| | ... ... ... | Nov. | 25 | R | | 17 | 10·47 | ... | | 53 | 28·7 | ... |
| | ... ... ... | ,, | 30 | R | | 17 | 10·50 | ... | | 53 | 28·9 | ... |
| | ... ... ... | Dec. | 16 | R | | 17 | 10·63 | ... | | 53 | 29·0 | ... |
| | ... ... ... | ,, | 17 | R | | 17 | 10·52 | ... | | 53 | 31·0 | ... |
| | ... ... ... | ,, | 21 | R | | 17 | 10·55 | ... | | 53 | 29·9 | ... |
| | ... ... ... | ,, | 23 | R | | 17 | 10·52 | ... | | 53 | 30·2 | ... |
| | ... ... ... | ,, | 25 | R | | 17 | 10·56 | ... | | 53 | 28·4 | ... |
| | ... ... ... | ,, | 26 | R | | 17 | 10·59 | ... | | 53 | 29·4 | ... |
| | ... ... ... | ,, | 30 | M | | 17 | 10·47 | ... | | 53 | 30·8 | ... |
| | ... ... ... | ,, | 31 | M | | 17 | 10·44 | ... | | 53 | 29·9 | ... |
| 41 | .. ... ... | Nov. | 28 | R | 1 | 23 | 24·98 | 5 | 87 | 44 | 17·1 | 8·0 |
| | ... ... .. | Dec. | 8 | M | | 23 | 24·91 | .. | | 44 | 17·3 | 8·1 |
| 42 | R. Piscium Var 1 .. | Dec. | 23 | R | 1 | 23 | 34·40 | 4 | 87 | 49 | 43·5 | 10·2 |
| 43 | 99 Piscium η... ... | Aug | 31 | R | 1 | 24 | 9·37 | 5 | 75 | 21 | 43·6 | ... |
| | ... ... ... | Oct. | 26 | R | | 24 | 9·37 | 5 | | 21 | 43·8 | ... |
| | ... ... ... | Nov | 14 | M | | 24 | 9·30 | ... | | 21 | 44·2 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 43 | 99 Piscium η... ... | Nov. | 21 | R | 1 | 24 | 9·32 | ... | 75 | 21 | 43·1 | — |
| | ... ... ... | ,, | 23 | R | | 24 | 9·35 | 5 | | 21 | 42·4 | ... |
| | ... ... ... | Dec. | 17 | R | | 24 | 9·32 | ... | | 21 | 45·0 | ... |
| | ... ... ... | ,, | 21 | R | | 24 | 9·29 | ... | | 21 | 43·3 | ... |
| | ... ... ... | ,, | 25 | R | | 24 | 9·30 | ... | | 21 | 42·6 | ... |
| | ... ... ... | ,, | 26 | R | | 24 | 9·31 | 5 | | 21 | 43·0 | ... |
| | ... ... ... | ,, | 31 | M | | 24 | 9·35 | ... | | 21 | 43·4 | ... |
| 44 | 102 Piscium π ... | Oct. | 26 | R | 1 | 29 | 50·23 | ... | 78 | 33 | 39·1 | ... |
| 45 | 525 Taylor ... ... | Nov. | 4 | M | 1 | 30 | 7·09 | ... | 148 | 50 | 23·0 | 5·9 |
| | ... ... ... | ,, | 5 | M | | 30 | 6·86 | ... | | 50 | 24·3 | 5·9 |
| 46 | 539 Taylor ... ... | Nov. | 3 | M | 1 | 31 | 43·84 | 5 | 148 | 58 | 15·6 | 5·5 |
| | ... ... ... | ,, | 6 | M | | 31 | 43·49 | 5 | | 58 | 17·6 | 5·7 |
| 47 | — Eridani α... ... | Nov. | 18 | R | 1 | 32 | 36·63 | 5 | 147 | 56 | 2·4 | ... |
| | ... ... ... | Dec. | 22 | R | | 32 | 36·78 | ... | | 56 | 2·9 | ... |
| 48 | 106 Piscium ν ... | Oct. | 29 | R | 1 | 34 | 18·22 | ... | 85 | 12 | 25·4 | ... |
| | ... ... ... | Nov. | 14 | M | | 34 | 18·22 | ... | | 12 | 26·7 | ... |
| | ... ... ... | ,, | 21 | R | | 34 | 18·24 | ... | | 12 | 24·4 | ... |
| | ... ... ... | Dec. | 8 | M | | 34 | 18·30 | ... | | 12 | 25·7 | ... |
| | ... ... ... | ,, | 11 | M | | 34 | 18·18 | ... | | 12 | 24·8 | ... |
| 49 | 503 Lacaille ... ... | Nov. | 11 | M | 1 | 35 | 40·00 | ... | 151 | 41 | 37·3 | 7·5 |
| | ... ... ... | ,, | 25 | R | | 35 | 40·03 | ... | | 41 | 36·2 | 8·3 |
| 50 | 507 Lacaille ... ... | Nov. | 7 | M | 1 | 37 | 6·61 | ... | 151 | 28 | 49·2 | 6·0 |
| | ... ... ... | ,, | 28 | R | | 37 | 6·38 | ... | | 28 | 51·4 | 6·3 |
| 51 | 110 Piscium ο ... | Nov. | 21 | R | 1 | 38 | 9·67 | ... | 81 | 31 | 50·8 | — |
| 52 | ... ... .. | Oct. | 28 | R | 1 | 39 | 51·31 | .. | 149 | 27 | 39·0 | 9·0 |
| | ... ... ... | Nov. | 2 | M | | 39 | 51·70 | 5 | | 27 | 41·1 | 9·5 |
| 53 | ... ... .. | Nov. | 11 | M | 1 | 46 | 7·50 | 5 | 148 | 58 | 15·5 | 9·7 |
| | ... ... .. | Dec. | 8 | M | | 46 | 7·53 | 3 | | 58 | 14·7 | 9·6 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 54 | 6 Arietis β ... ... | Oct. | 29 | R | 1 | 47 | 4·62 | ... | 69 | 51 | 48·4 | ... |
| | ... ... ... | Nov. | 4 | M | | 47 | 4·62 | ... | | 51 | 48·9 | ... |
| | ... ... ... | „ | 9 | M | | 47 | 4·59 | ... | | 51 | 48·4 | ... |
| | ... ... .. | „ | 18 | R | | 47 | 4·59 | ... | | 51 | 48·4 | ... |
| | ... ... ... | „ | 21 | R | | 47 | 4·57 | ... | | 51 | 48·5 | .. |
| | ... ... ... | „ | 30 | R | | 47 | 4·57 | ... | | 51 | 49·1 | ... |
| | ... ... ... | Dec. | 7 | M | | 47 | 4·40 | ... | | 51 | 49·8 | ... |
| | ... ... ... | „ | 10 | M | | 47 | 4·68 | ... | | 51 | 49·3 | ... |
| | ... ... ... | „ | 11 | M | | 47 | 4·59 | .. | | 51 | 49·9 | ... |
| | ... ... ... | „ | 12 | M | | 47 | 4·57 | ... | | 51 | 47·7 | ... |
| | ... ... ... | „ | 19 | R | | 47 | 4·72 | ... | | 51 | 48·6 | ... |
| | ... ... ... | „ | 24 | R | | 47 | 4·70 | ... | | 51 | 47·8 | ... |
| | ... ... ... | „ | 31 | M | | 47 | 4·61 | ... | | 51 | 49·1 | ... |
| 55 | ... ... ... | Nov. | 7 | M | 1 | 48 | 31·03 | 5 | 150 | 5 | 31·2 | 9·3 |
| | ... ... ... | „ | 25 | R | | 48 | 31·15 | 6 | | 5 | 30·8 | 9·5 |
| 56 | 582 Lacaille ... ... | Nov. | 3 | M | 1 | 50 | 52·87 | ... | 145 | 44 | 39·0 | 8·7 |
| | ... ... ... | „ | 6 | M | | 50 | 52·65 | ... | | 44 | 40·1 | 8·5 |
| 57 | ... ... ... | Nov. | 7 | M | 1 | 59 | 21·53 | ... | 150 | 2 | 49·2 | 9·6 |
| | ... ... ... | „ | 25 | R | | 59 | 21·63 | ... | | 2 | 50·6 | 9·5 |
| 58 | 13 Arietis α ... ... | Nov. | 14 | M | 1 | 59 | 27·26 | ... | 67 | 11 | 16·2 | ... |
| | ... ... ... | „ | 28 | R | | 59 | 27·34 | .. | | 11 | 14·9 | ... |
| | ... ... ... | „ | 30 | R | | 59 | 27·35 | 5 | | 11 | 14·9 | ... |
| | ... ... ... | Dec. | 8 | M | | 59 | 27·28 | ... | | 11 | 15·9 | ... |
| | .. ... ... | „ | 11 | M | | 59 | 27·34 | ... | | 11 | 15·5 | ... |
| | ... .. ... | „ | 14 | M | | 59 | 27·32 | ... | | 11 | 15·8 | ... |
| | ... ... ... | „ | 15 | M | | 59 | 27·30 | ... | | 11 | 14·5 | ... |
| | ... ... ... | „ | 16 | R | | 59 | 27·22 | ... | | 11 | 14·2 | ... |
| | ... ... .. | „ | 24 | R | | 59 | 27·31 | ... | | 11 | 15·5 | ... |
| | ... ... ... | „ | 29 | M | | 59 | 27·35 | ... | | 11 | 15·9 | ... |
| 59 | 630 Lacaille ... .. | Nov. | 5 | M | 1 | 59 | 46·48 | .. | 145 | 32 | 17·5 | 6·0 |
| | .. ... ... | | 13 | M | | 59 | 46·48 | ... | | 32 | 18·3 | 6·0 |
| 60 | . ... .. | Oct. | 29 | R | 2 | 1 | 1·61 | 5 | 149 | 49 | 19·8 | 9·6 |
| | ... ... .. | Nov. | 2 | M | | 1 | 1·56 | 6 | | 49 | 23·9 | 9·6 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 61 | 697 Taylor ... ... | Nov. | 6 | M | 2 | 1 | 41·07 | ... | 145 | 44 | 16·5 | 7·0 |
| | ... ... ... | Dec. | 17 | R | | 1 | 43·78 | 5 | | 44 | 15·2 | 7·8 |
| 62 | 17 Arietis η ... ... | Dec. | 19 | R | 2 | 5 | 8·15 | ... | 69 | 26 | 5·5 | ... |
| 63 | 677 Lacaille ... ... | Nov. | 7 | M | 2 | 6 | 51·10 | 5 | 149 | 47 | 52·8 | 8·0 |
| 64 | ... ... ... | Nov. | 11 | M | 2 | 6 | 56·71 | ... | 148 | 39 | 46·7 | 9·8 |
| 65 | 67 Ceti ... ... | Dec. | 7 | M | 2 | 10 | 9·09 | ... | 97 | 3 | 19·4 | ... |
| | ... ... ... | „ | 8 | M | | 10 | 9·01 | ... | | 3 | 20·0 | ... |
| | ... ... ... | „ | 10 | M | | 10 | 9·01 | ... | | 3 | 19·2 | ... |
| | ... ... ... | „ | 11 | M | | 10 | 9·04 | ... | | 3 | 19·2 | ... |
| | ... ... ... | „ | 14 | M | | 10 | 9·05 | ... | | 3 | 21·2 | ... |
| | ... ... ... | „ | 29 | M | | 10 | 9·10 | ... | | 3 | 21·0 | ... |
| 66 | 68 Ceti o Var. 1 ... | Dec. | 17 | R | 2 | 12 | 25·64 | ... | 93 | 36 | 8·6 | 7·8 |
| 67 | ... ... ... | Oct. | 27 | R | 2 | 13 | 56·42 | 5 | 148 | 27 | 13·6 | 9·7 |
| | ... ... ... | Nov. | 4 | M | | 13 | 56·25 | 4 | | 27 | 14·2 | 9·6 |
| 68 | ... ... ... | Nov. | 9 | M | 2 | 15 | 38·11 | 5 | 152 | 34 | 27·8 | 7·1 |
| | ... ... ... | Dec. | 18 | R | | 15 | 37·64 | 5 | | 34 | 28·0 | 9·0 |
| 69 | 818 Taylor ... ... | Oct. | 26 | R | 2 | 19 | 6·27 | 5 | 147 | 26 | 14·8 | 8·5 |
| | ... ... ... | „ | 27 | R | | 19 | 6·31 | 5 | | 26 | 15·0 | 8·0 |
| 70 | 73 Ceti ξ² ... ... | Nov. | 18 | R | 2 | 20 | 52·68 | ... | 82 | 9 | 20·7 | ... |
| | ... ... ... | „ | 23 | R | | 20 | 52·59 | ... | | 9 | 21·8 | ... |
| | ... ... ... | „ | 28 | R | | 20 | 52·70 | ... | | 9 | 20·8 | ... |
| | ... ... ... | Dec. | 7 | M | | 20 | 52·67 | ... | | 9 | 20·8 | ... |
| | ... ... ... | „ | 10 | M | | 20 | 52·61 | ... | | 9 | 21·1 | ... |
| | ... ... ... | „ | 12 | M | | 20 | 52·66 | ... | | 9 | 20·6 | ... |
| | ... ... ... | „ | 14 | M | | 20 | 52·64 | 5 | | 9 | 22·8 | ... |
| | ... ... ... | „ | 15 | M | | 20 | 52·60 | ... | | 9 | 21·2 | ... |
| 71 | — Horologii λ ... | Nov. | 13 | M | 2 | 21 | 4·08 | ... | 150 | 55 | 36·9 | 6·0 |
| | ... ... | Dec. | 19 | R | | 21 | 4·21 | ... | | 55 | 34·7 | 7·0 |

## *Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 72 | 26 R. P. L. ... .. | Nov. | 14 | M | 2 | 22 | 11·74 | 3 | 3 | 33 | 14·8 | ... |
| | ... ... ... | " | 26 | R | | 22 | 11·90 | 2 | | 33 | 10·1 | .. |
| 73 | ... ... ... | Nov. | 9 | M | 2 | 24 | 13·73 | ... | 152 | 35 | 55·2 | 9·3 |
| | ... ... ... | Dec. | 18 | R | | 24 | 13·58 | 5 | | 35 | 56·7 | 9·5 |
| 74 | ... ... ... | Oct. | 26 | R | 2 | 27 | 23·67 | .. | 147 | 12 | 29·7 | 8·7 |
| | ... ... .. | " | 27 | R | | 27 | 23·69 | 4 | | 12 | 28·1 | 8·8 |
| 75 | 31 Arietis ... ... | Nov. | 23 | R | 2 | 29 | 9·86 | ... | 78 | 8 | 55·0 | ... |
| 76 | 849 Lacaille (1st) ... | Nov. | 9 | M | 2 | 35 | 59·20 | ... | 150 | 9 | 25·0 | 7·8 |
| 77 | 849 Lacaille (2nd) ... | Dec. | 10 | M | 2 | 36 | 3·93 | ... | 150 | 9 | 32·8 | 7·9 |
| | ... ... ... | " | 14 | M | | 36 | 3·78 | 2 | | 9 | 31·6 | 8·0 |
| 78 | 86 Ceti γ ... ... | Oct. | 28 | R | 2 | 36 | 12·30 | 6 | 87 | 20 | 40·8 | ... |
| | ... ... .. | Nov. | 20 | R | | 36 | 12·23 | ... | | 20 | 37·5 | ... |
| | ... ... ... | Dec. | 7 | M | | 36 | 12·14 | ... | | 20 | 37·6 | ... |
| | ... ... ... | " | 8 | M | | 36 | 12·17 | ... | | 20 | 38·5 | .. |
| | ... .. ... | " | 12 | M | | 36 | 12·21 | ... | | 20 | 36·4 | ... |
| | ... ... ... | " | 18 | R | | 36 | 12·26 | 5 | | 20 | 41·5 | ... |
| 79 | 38 Arietis ... ... | Nov. | 23 | R | 2 | 37 | 29·97 | 5 | 78 | 7 | 55·9 | ... |
| 80 | 868 Lacaille ... .. | Oct. | 26 | R | 2 | 38 | 31·18 | ... | 147 | 13 | 27·5 | 8·0 |
| | ... ... .. | " | 27 | R | | 38 | 31·17 | ... | | 13 | 26·4 | 8·5 |
| 81 | ... ... .. | Dec. | 15 | M | 2 | 43 | 16·32 | .. | 148 | 0 | 51·6 | 8·7 |
| 82 | ... ... ... | Oct. | 26 | R | 2 | 44 | 27·54 | 5 | 148 | 14 | 5·1 | 8·8 |
| | ... ... .. | " | 27 | R | | 44 | 27·45 | .. | | 14 | 5·9 | 8·7 |
| 83 | ... ... .. | Nov. | 26 | R | 2 | 45 | 12·36 | 5 | 76 | 28 | 9·1 | 9·0 |
| 84 | 48 Arietis ε ... .. | Oct. | 26 | R | 2 | 51 | 22·97 | ... | [illegible] | 12 | 38·0 | ... |
| | ... ... ... | " | 27 | R | | 51 | 23·01 | ... | | 12 | 37·7 | .. |
| 85 | ... ... .. | Dec. | 8 | M | 2 | 52 | [illegible] | .. | [illegible] | 17 | 22·3 | 8·5 |

## *Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 86 | 92 Ceti α ... ... | Nov. | 23 | R | 2 | 55 | 7·21 | ... | 86 | 27 | 0·5 | ... |
| | ... ... ... | ,, | 24 | R | | 55 | 7·23 | ... | | 27 | 0·0 | ... |
| | ... ... ... | ,, | 26 | R | | 55 | 7·15 | ... | | 27 | 0·4 | ... |
| | ... ... .. | ,, | 28 | R | | 55 | 7·12 | ... | | 27 | 0·2 | ... |
| | ... ... .. | Dec. | 10 | M | | 55 | 7·14 | ... | | 27 | 0·4 | ... |
| | ... ... .. | ,, | 12 | M | | 55 | 7·16 | ... | | 26 | 59·6 | ... |
| | ... ... .. | ,, | 22 | R | | 55 | 7·17 | ... | | 27 | 1·0 | ... |
| | ... ... ... | ,, | 23 | R | | 55 | 7·20 | ... | | 27 | 1·2 | ... |
| 87 | 25 Persei ρ Var. 2 .. | Dec. | 11 | M | 2 | 56 | 21·33 | ... | 51 | 41 | 38·0 | ... |
| 88 | 26 Persei β Var. 1 ... | Dec. | 19 | R | 2 | 59 | 15·82 | ... | 49 | 34 | 55·4 | ... |
| 89 | 1047 Taylor ... ... | Nov. | 7 | M | 2 | 59 | 50·11 | ... | 151 | 20 | 4·8 | 6·0 |
| 90 | 33 R. P. L. ... ... | Jan. | 9 | M | 3 | 0 | 29·64 | 5 | 5 | 35 | 4·3 | ... |
| | ... ... ... | ,, | 10 | M | | 0 | 30·02 | 3 | | 35 | 3·3 | ... |
| 91 | 57 Arietis δ ... .. | Oct. | 26 | R | 3 | 3 | 47·94 | ... | 70 | 47 | 40·7 | ... |
| | ... ... .. | ,, | 27 | R | | 3 | 47·94 | ... | | 47 | 38·6 | ... |
| | ... ... .. | Nov. | 23 | R | | 3 | 47·96 | ... | | 47 | 39·8 | ... |
| | ... ... .. | ,, | 24 | R | | 3 | 47·99 | ... | | 47 | 39·4 | ... |
| | ... ... . | Dec. | 30 | M | | 3 | 48·00 | ... | | 47 | 39·9 | ... |
| 92 | .. .. .. | Jan. | 16 | M | 3 | 12 | 38·90 | 5 | 130 | 50 | 30·1 | 8·5 |
| | ... ... .. | Dec. | 14 | M | | 12 | 38·92 | 4 | | 50 | 30·7 | 8·5 |
| | ... ... ... | ,, | 22 | R | | 12 | 39·02 | ... | | 50 | 30·7 | 9·0 |
| 93 | 61 Arietis τ¹ . | Nov. | 23 | R | 3 | 13 | 19·29 | ... | 69 | 20 | 59·3 | ... |
| | ... ... .. | ,, | 24 | R | | 13 | 19·37 | ... | | 20 | 59·4 | ... |
| 94 | ... ... .. | Oct. | 26 | R | 3 | 14 | 49·93 | 5 | 150 | 6 | 32·6 | 9·2 |
| 95 | 1 Tauri o .. .. | Dec. | 12 | M | 3 | 17 | 26·50 | ... | 81 | 27 | 20·8 | ... |
| 96 | ... ... ... | Oct. | 27 | R | 3 | 20 | 16·[illegible]8 | 5 | 149 | 19 | 7·8 | 9·0 |
| 97 | R Persei Var. 3 .. | Dec. | 22 | R | 3 | 21 | 20·25 | ... | 54 | 48 | 15·6 | 9·7 |
| | ... ... ... | ,, | 23 | R | | 21 | 20·20 | 6 | | 48 | 15·2 | 10·2 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | | ° | ′ | ″ | |
| 98 | ... ... ... | Nov. 18 | R | 3 | 21 | 56·75 | ... | 88 | 12 | 37·5 | 7·5 |
| 99 | ... ... .. | Nov. 13 | M | 3 | 25 | 51·94 | ... | 87 | 53 | 32·0 | 9·0 |
| | ... ... ... | " 27 | R | | 25 | 51·95 | ... | | 53 | 25·5 | 9·4 |
| 100 | 1193 Lacaille .. | Dec. 8 | M | 3 | 35 | 14·00 | ... | 146 | 35 | 24·7 | 8·3 |
| 101 | 1200 Lacaille .. | Nov. 14 | M | 3 | 36 | 23·16 | ... | 146 | 40 | 44·3 | 6·7 |
| 102 | ... ... ... | Nov. 26 | R | 3 | 38 | 3·95 | 5 | 146 | 13 | 2·8 | 9·0 |
| 103 | 25 Tauri η ... .. | Jan. 5 | M | 3 | 39 | 20·69 | ... | 66 | 19 | 16·4 | ... |
| | ... ... .. | " 6 | M | | 39 | 20·75 | ... | | 19 | 17·6 | ... |
| | ... ... ... | " 8 | M | | 39 | 20·73 | ... | | 19 | 18·1 | ... |
| | ... ... .. | " 10 | M | | 39 | 20·72 | ... | | 19 | 18·4 | ... |
| | ... ... .. | Oct. 27 | R | | 39 | 20·64 | 5 | | 19 | 19·6 | ... |
| | ... ... .. | " 28 | R | | 39 | 20·65 | ... | | 19 | 19·4 | ... |
| | ... ... .. | Dec. 9 | M | | 39 | 20·59 | ... | | 19 | 19·1 | .. |
| | ... ... ... | " 15 | M | | 39 | 20·66 | | | 19 | 17·6 | ... |
| | ... ... ... | " 22 | R | | 39 | 20·55 | ... | | 19 | 18·5 | .. |
| | ... ... .. | " 23 | R | | 39 | 20·59 | .. | | 19 | 18·6 | ... |
| 104 | ... ... ... | Feb. 5 | R | 3 | 45 | 8·33 | 5 | 76 | 27 | 54·2 | ... |
| | ... ... ... | Nov. 26 | R | | 45 | 8·48 | 5 | | 27 | 55·6 | 8·6 |
| | ... ... ... | Dec. 22 | R | | 45 | 8·35 | 5 | | 27 | 56·0 | 9·0 |
| 105 | 34 Eridani $\gamma^1$ .. | Jan. 5 | M | 3 | 51 | 38·22 | ... | 103 | 54 | 1·1 | ... |
| | ... ... ... | " 6 | M | | 51 | 38·23 | ... | | 54 | 1·9 | .. |
| | ... ... .. | " 8 | M | | 51 | 38·23 | .. | | 54 | 2·1 | .. |
| | ... ... .. | Nov. 25 | R | | 51 | 38·25 | | | 54 | 2·0 | .. |
| | ... ... .. | " 27 | R | | 51 | 38·25 | | | 54 | 3·0 | ... |
| | ... ... .. | Dec. 9 | M | | 51 | 38·20 | ... | | 54 | 2·7 | ... |
| | ... ... ... | " 14 | M | | 51 | 38·29 | ... | | 54 | 4·7 | ... |
| | ... ... ... | " 22 | R | | 51 | 38·34 | | | 54 | 3·0 | .. |
| 106 | ... ... .. | Nov. 24 | R | 3 | 53 | 2·96 | .. | 128 | 25 | 35·7 | 10·0 |
| 107 | 35 Tauri λ Var. 1 .. | Jan. 9 | M | 3 | 53 | 5·55 | 5 | 77 | 52 | 6·9 | ... |
| | ... ... | " 10 | M | | 53 | 5·63 | | | 54 | 7·9 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | | ° | ′ | ″ | |
| 108 | ... ... ... | Dec. 12 | M | 3 | 53 | 38·68 | 5 | 143 | 8 | 33·2 | 8·1 |
| 109 | 37 Tauri A[1] ... ... | Oct. 27 | R | 3 | 56 | 35·92 | 5 | 68 | 17 | 45·3 | ... |
| | ... ... ... | „ 28 | R | | 56 | 35·80 | 5 | | 17 | 47·1 | ... |
| | ... ... ... | Dec. 22 | R | | 56 | 35·87 | ... | | 17 | 46·2 | . |
| 110 | 7581 Lalande ... | Feb. 5 | R | 3 | 58 | 10·37 | 6 | 74 | 52 | 31·5 | 9·0 |
| | ... ... .. | „ 9 | R | | 58 | 10·41 | 5 | | 52 | 30·7 | ... |
| 111 | .. ... ... | Feb. 2 | R | 4 | 3 | 20·55 | 4 | 68 | 30 | 27·2 | 10·0 |
| | ... ... ... | Nov. 24 | R | | 3 | 20·45 | 4 | | 30 | 28·3 | 10·3 |
| 112 | 7764 Lalande ... | Feb. 5 | R | 4 | 3 | 24·89 | ... | 74 | 44 | 0·8 | 8·5 |
| | ... ... ... | „ 9 | R | | 3 | 24·96 | 5 | | 44 | 2·1 | 8·3 |
| 113 | ... ... ... | Nov. 27 | R | 4 | 3 | 41·01 | ... | 146 | 56 | 38·5 | 9·2 |
| 114 | 38 Eridani o[1] ... | Jan. 15 | M | 4 | 5 | 10·70 | ... | 97 | 11 | 51·4 | ... |
| | ... ... ... | Dec. 18 | R | | 5 | 10·74 | ... | | 11 | 51·7 | ... |
| 115 | 1418 Lacaille ... | Jan. 16 | M | 4 | 13 | 25·56 | 5 | 143 | 39 | 54·7 | 8·0 |
| | ... ... ... | Oct. 26 | R | | 13 | 25·52 | ... | | 39 | 54·7 | 8·2 |
| 116 | ... ... ... | Nov. 27 | R | 4 | 13 | 44·17 | 5 | 70 | 51 | 40·1 | 8·8 |
| | ... ... ... | Dec. 12 | M | | 13 | 44·12 | ... | | 51 | 40·6 | 9·0 |
| 117 | ... ... ... | Feb. 2 | R | 4 | 15 | 37·57 | 6 | 128 | 39 | 56·9 | 9·5 |
| | ... ... ... | „ 5 | R | | 15 | 37·80 | 4 | | 39 | 59·9 | 9·5 |
| 118 | ... ... ... | Dec. 8 | M | 4 | 16 | 44·94 | 3 | 149 | 4 | 31·4 | 8·7 |
| 119 | 74 Tauri ε ... ... | Jan. 5 | M | 4 | 20 | 37·18 | ... | 71 | 7 | 35·5 | ... |
| | ... ... ... | „ 6 | M | | 20 | 37·11 | ... | | 7 | 36·9 | ... |
| | ... ... ... | „ 9 | M | | 20 | 37·23 | ... | | 7 | 36·8 | ... |
| | ... ... ... | „ 10 | M | | 20 | 37·10 | ... | | 7 | 37·0 | ... |
| | ... ... ... | „ 14 | M | | 20 | 37·26 | ... | | 7 | 35·8 | ... |
| | ... ... ... | „ 15 | M | | 20 | 37·28 | ... | | 7 | 36·0 | ... |
| | ... ... ... | „ 17 | R | | 20 | 37·16 | ... | | 7 | 35·8 | ... |
| | ... ... ... | Oct. 28 | R | | 20 | 37·17 | ... | | 7 | 38·2 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | | ° | ' | " | |
| 119 | 74 Tauri ε ... ... | Nov. 24 | R | 4 | 20 | 37·17 | ... | 71 | 7 | 37·6 | ... |
| | ... ... ... | „ 25 | R | | 20 | 37·18 | ... | | 7 | 36·4 | ... |
| | ... ... .. | Dec. 9 | M | | 20 | 37·12 | ... | | 7 | 38·4 | ... |
| 120 | ... ... ... | Dec. 23 | R | 4 | 21 | 58·85 | ... | 80 | 28 | 12·0 | 10·2 |
| 121 | 1520 Lacaille ... | Dec. 12 | M | 4 | 26 | 39·85 | 3 | 147 | 29 | 8·1 | 8·7 |
| 122 | 87 Tauri α ... ... | Jan. 8 | M | 4 | 28 | 3·67 | ... | 73 | 46 | 9·6 | ... |
| | ... ... ... | „ 9 | M | | 28 | 3·63 | ... | | 46 | 10·9 | ... |
| | ... ... ... | „ 10 | M | | 28 | 3·77 | ... | | 46 | 10·6 | ... |
| | ... ... ... | „ 14 | M | | 28 | 3·86 | ... | | 46 | 9·8 | ... |
| | ... ... ... | „ 15 | M | | 28 | 3·83 | ... | | 46 | 10·5 | ... |
| | ... ... ... | „ 16 | M | | 28 | 3·69 | ... | | 46 | 10·3 | ... |
| | ... ... ... | „ 29 | R | | 28 | 3·76 | ... | | 46 | 10·3 | ... |
| | ... ... ... | Oct. 28 | R | | 28 | 3·65 | ... | | 46 | 12·1 | ... |
| | ... ... ... | Nov. 24 | R | | 28 | 3·67 | ... | | 46 | 11·3 | ... |
| | ... ... ... | Dec. 9 | M | | 28 | 3·90 | ... | | 46 | 12·2 | ... |
| | ... ... ... | „ 19 | R | | 28 | 3·64 | ... | | 46 | 11·4 | ... |
| 123 | ... ... ... | Jan. 20 | R | 4 | 28 | 26·16 | ... | 140 | 14 | 24·5 | 9·0 |
| | ... ... ... | Feb. 5 | R | | 28 | 25·99 | ... | | 14 | 23·2 | 9·0 |
| 124 | ... ... ... | Jan. 21 | R | 4 | 31 | 41·41 | 5 | 142 | 59 | 40·9 | 9·5 |
| | ... ... ... | Dec. 17 | R | | 31 | 41·10 | 6 | | 59 | 44·2 | 9·3 |
| 125 | ... ... ... | Jan. 24 | R | 4 | 32 | 54·89 | 5 | 130 | 48 | 20·4 | 9·5 |
| | ... ... ... | Feb. 9 | R | | 32 | 55·02 | 3 | | 48 | 21·8 | ... |
| 126 | 1566 Lacaille ... | Dec. 12 | M | 4 | 35 | 44·77 | ... | 148 | 28 | 31·1 | 8·0 |
| 127 | ... ... ... | Nov. 26 | R | 4 | 36 | 15·67 | 5 | 64 | 19 | 22·1 | 9·5 |
| | ... ... ... | „ 27 | R | | 36 | 16·01 | 5 | | 19 | 24·0 | 9·5 |
| 128 | 1663 Taylor ... ... | Jan. 19 | R | 4 | 36 | 48·54 | 3 | 138 | 48 | 16·4 | 5·0 |
| 129 | ... ... .. | Jan. 24 | R | 4 | 39 | 28·28 | 4 | 123 | 57 | 41·1 | 9·5 |
| | ... .. ... | Feb. 5 | R | | 39 | 28·19 | 3 | | 57 | 38·8 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 130 | 1598 Lacaille ... | Feb. | 12 | R | 4 | 41 | 35·31 | 5 | 128 | 21 | 43·7 | 7·0 |
| | ... ... ... | Dec. | 18 | R | | 41 | 35·29 | 5 | | 21 | 45·8 | 8·0 |
| 131 | ... ... ... | Jan | 23 | R | 4 | 43 | 18·87 | 5 | 130 | 41 | 18·3 | 9·3 |
| | ... ... ... | Dec. | 17 | R | | 43 | 16·57 | ... | | 41 | 21·6 | 9·7 |
| 132 | 97 Tauri ι ... ... | Dec. | 22 | R | 4 | 43 | 21·60 | ... | 71 | 23 | 49·8 | ... |
| | ... ... ... | „ | 23 | R | | 43 | 21·66 | ... | | 23 | 49·6 | ... |
| 133 | 1625 Lacaille... ... | Jan. | 19 | R | 4 | 44 | 57·43 | ... | 140 | 1 | 53·5 | 8·5 |
| | ... ... ... | „ | 21 | R | | 44 | 57·40 | ... | | 1 | 54·5 | 8·0 |
| 134 | ... ... ... | Jan. | 24 | R | 4 | 45 | 26·85 | 5 | 129 | 25 | 9·4 | 9·0 |
| | ... ... ... | Feb. | 14 | R | | 45 | 26·97 | 5 | | 25 | 8·5 | 8·7 |
| 135 | 3 Aurigæ ι ... ... | Jan. | 16 | M | 4 | 48 | 4·44 | ... | 57 | 3 | 16·8 | ... |
| | ... ... ... | „ | 17 | R | | 48 | 4·45 | 4 | | 3 | 16·8 | ... |
| | ... ... ... | Feb. | 9 | R | | 48 | 4·46 | ... | | 3 | 17·0 | ... |
| 136 | 1761 Taylor ... ... | Jan. | 22 | R | 4 | 49 | 57·63 | ... | 129 | 15 | 43·8 | 7·5 |
| 137 | 7 Aurigæ ε Var. 1 ... | Jan. | 21 | R | 4 | 52 | 8·50 | ... | 46 | 23 | 0·5 | ... |
| | ... ... ... | Feb. | 13 | R | | 52 | 8·62 | 5 | | 23 | 0·8 | ... |
| 138 | 1780 Taylor ... ... | Jan. | 20 | R | 4 | 52 | 15·45 | ... | 144 | 38 | 52·0 | 9·0 |
| 139 | ... ... ... | Jan. | 24 | R | 4 | 52 | 17·03 | 5 | 129 | 39 | 57·2 | 9·0 |
| 140 | R Leporis Var. 1 ... | Jan. | 6 | M | 4 | 53 | 21·99 | 6 | 105 | 0 | 54·1 | 6·0 |
| | ... ... ... | „ | 8 | M | | 53 | 22·08 | ... | | 0 | 54·1 | ... |
| | ... ... ... | „ | 9 | M | | 53 | 22·26 | ... | | 0 | 54·8 | ... |
| | ... ... ... | „ | 10 | M | | 53 | 22·11 | ... | | 0 | 55·0 | ... |
| | ... ... ... | „ | 15 | M | | 53 | 22·17 | ... | | 0 | 53·9 | 6·5 |
| 141 | 102 Tauri ι ... ... | Dec. | 22 | R | 4 | 54 | 54·03 | ... | 68 | 36 | 35·9 | ... |
| 142 | ... ... ... | Jan. | 23 | R | 4 | 55 | 54·58 | ... | 130 | 17 | 47·1 | 9·0 |
| | ... ... ... | Feb. | 12 | R | | 55 | 54·44 | ... | | 17 | 46·0 | 9·2 |
| | ... ... ... | „ | 17 | R | | 55 | 54·56 | 6 | | 17 | 45·1 | 9·0 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 143 | 1811 Taylor ... ... | Jan. | 22 | R | 4 | 57 | 1·08 | 5 | 129 | 55 | 8·7 | 6·5 |
| 144 | 1705 Lacaille ... | Feb. | 14 | R | 4 | 57 | 23·66 | ... | 129 | 16 | 37·2 | 8·1 |
| | ... ... ... | Dec. | 12 | M | | 57 | 23·50 | ... | | 16 | 38·0 | 8·0 |
| 145 | 2 Leporis ε ... ... | Jan. | 17 | R | 4 | 59 | 39·78 | ... | 112 | 33 | 27·8 | .. |
| | ... ... ... | ,, | 19 | R | | 59 | 39·64 | ... | | 33 | 26·9 | ... |
| | ... ... ... | ,, | 20 | R | | 59 | 39·76 | ... | | 33 | 26·7 | ... |
| | ... ... ... | ,, | 21 | R | | 59 | 39·69 | 5 | | 33 | 26·0 | ... |
| | ... ... ... | Feb. | 9 | R | | 59 | 39·32 | 5 | | 33 | 27·3 | ... |
| | ... ... ... | ,, | 16 | R | | 59 | 39·69 | ... | | 33 | 27·1 | ... |
| 146 | 15 Orionis ... ... | Nov. | 25 | R | 5 | 1 | 51·41 | ... | 74 | 34 | 52·6 | ... |
| | ... ... ... | ,, | 26 | R | | 1 | 51·55 | ... | | 34 | 53·1 | ... |
| 147 | ... ... ... | Jan. | 23 | R | 5 | 6 | 0·29 | ... | 131 | 45 | 47·7 | 9·0 |
| | ... ... ... | Feb. | 12 | R | | 6 | 0·25 | ... | | 45 | 46·8 | 9·0 |
| 148 | 13 Aurigæ α ... ... | Feb. | 14 | R | 5 | 6 | 34·36 | ... | 44 | 8 | 28·4 | ... |
| 149 | ... ... ... | Jan. | 22 | R | 5 | 6 | 50·12 | 5 | 129 | 6 | 7·7 | 8·0 |
| | ... ... ... | Feb. | 13 | R | | 6 | 49·90 | ... | | 6 | 8·0 | 8·5 |
| 150 | 19 Orionis β ... ... | Jan. | 15 | M | 5 | 7 | 57·11 | ... | 98 | 21 | 45·8 | ... |
| | ... ... ... | ,, | 16 | M | | 7 | 57·09 | ... | | 21 | 45·8 | ... |
| | ... ... ... | ,, | 29 | R | | 7 | 57·33 | ... | | 21 | 46·8 | ... |
| | ... ... ... | Dec. | 23 | R | | 7 | 57·36 | ... | | 21 | 50·3 | ... |
| 151 | ... ... ... | Jan. | 23 | R | 5 | 12 | 49·77 | 5 | 129 | 40 | 10·5 | 9·5 |
| | ... .. ... | Feb. | 12 | R | | 12 | 49·56 | 5 | | 40 | 9·5 | 9·3 |
| 152 | 1822 Lacaille... ... | Jan. | 20 | R | 5 | 15 | 41·44 | ... | 141 | 43 | 16·4 | 8·0 |
| | ... .. ... | Feb. | 14 | R | | 15 | 41·63 | 3 | | 43 | 17·6 | 7·8 |
| 153 | 112 Tauri β ... ... | Jan. | 9 | M | 5 | 17 | 38·04 | .. | 61 | 30 | 44·9 | ... |
| | ... ... ... | ,, | 16 | M | | 17 | 37·95 | ... | | 30 | 43·2 | ... |
| | ... ... ... | ,, | 21 | R | | 17 | 37·94 | .. | | 30 | 44·1 | ... |
| | ... ... . | ,, | 29 | R | | 17 | 37·91 | ... | | 30 | 44·8 | ... |
| | ... ... ... | ,, | 30 | R | | 17 | 37·96 | ... | | 30 | 44·4 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 153 | 112 Tauri β ... ... | Feb. | 2 | R | 5 | 17 | 37·98 | ... | 61 | 30 | 44·2 | ... |
| | ... ... ... | „ | 5 | R | | 17 | 37·89 | ... | | 30 | 43·7 | ... |
| 154 | ... ... ... | Jan. | 22 | R | 5 | 18 | 41·05 | ... | 120 | 58 | 4·4 | 8·5 |
| | ... ... ... | Feb. | 13 | R | | 18 | 40·94 | ... | | 58 | 4·6 | 8·9 |
| | ... ... ... | Dec. | 10 | M | | 18 | 40·84 | ... | | 58 | 4·3 | 8·7 |
| 155 | ... ... ... | Jan. | 23 | R | 5 | 19 | 43·42 | ... | 131 | 3 | 57·6 | 9·5 |
| 156 | 34 Orionis δ Var. 1... | Jan. | 14 | M | 5 | 25 | 0·39 | ... | 90 | 24 | 13·5 | ... |
| | ... ... ... | „ | 19 | R | | 25 | 0·48 | ... | | 24 | 14·3 | ... |
| | ... ... ... | „ | 20 | R | | 25 | 0·58 | ... | | 24 | 14·0 | ... |
| | ... ... ... | Feb. | 14 | R | | 25 | 0·59 | 5 | | 24 | 14·5 | ... |
| | ... ... ... | „ | 16 | R | | 25 | 0·49 | ... | | 24 | 13·4 | ... |
| | ... ... ... | „ | 18 | R | | 25 | 0·54 | ... | | 24 | 14·2 | ... |
| | ... ... ... | Nov. | 27 | R | | 25 | 0·48 | ... | | 24 | 14·2 | ... |
| 157 | 11 Leporis α ... ... | Jan. | 21 | R | 5 | 26 | 41·34 | 6 | 107 | 55 | 22·7 | ... |
| | ... ... ... | „ | 22 | R | | 26 | 41·34 | ... | | 55 | 22·6 | ... |
| | ... ... ... | „ | 24 | R | | 26 | 41·30 | ... | | 55 | 22·8 | ... |
| | ... ... ... | Feb. | 5 | R | | 26 | 41·38 | ... | | 55 | 21·6 | ... |
| | ... ... ... | „ | 17 | R | | 26 | 41·36 | ... | | 55 | 22·0 | ... |
| 158 | 46 Orionis ε ... ... | Jan. | 19 | R | 5 | 29 | 15·81 | 5 | 91 | 17 | 33·5 | ... |
| | ... ... ... | „ | 23 | R | | 29 | 15·77 | ... | | 17 | 33·9 | ... |
| | ... ... ... | Feb. | 2 | R | | 29 | 15·68 | ... | | 17 | 33·2 | ... |
| 159 | 123 Tauri ζ ... ... | Jan. | 29 | R | 5 | 29 | 27·46 | .. | 68 | 56 | 41·2 | ... |
| 160 | ... ... ... | Feb. | 4 | R | 5 | 31 | 35·77 | 5 | 128 | 42 | 15·9 | ... |
| | ... ... ... | Dec. | 10 | M | | 31 | 35·73 | ... | | 42 | 17·8 | 9·1 |
| | ... ... ... | „ | 23 | R | | 31 | 35·72 | ... | | 42 | 19·0 | 9·3 |
| 161 | ... ... ... | Feb. | 3 | R | 5 | 32 | 39·88 | ... | 128 | 41 | 17·4 | 9·0 |
| | ... ... ... | Dec. | 23 | R | | 32 | 39·82 | 4 | | 41 | 18·4 | 9·3 |
| 162 | — Columbæ α ... | Jan. | 20 | R | 5 | 34 | 41·34 | ... | 124 | 8 | 57·2 | ... |
| | ... ... ... | „ | 22 | R | | 34 | 41·39 | ... | | 8 | 57·5 | ... |
| | ... ... ... | „ | 23 | R | | 34 | 41·42 | 5 | | 8 | 56·2 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 162 | — Columbæ a ... | Feb. | 5 | R | 5 | 34 | 41·30 | ... | 124 | 8 | 56·0 | ... |
| | ... ... ... | „ | 18 | R | | 34 | 41·40 | ... | | 8 | 57·4 | .. |
| 163 | 2113 Taylor ... ... | Jan. | 24 | R | 5 | 35 | 6·11 | 5 | 130 | 45 | 36·7 | 8·5 |
| 164 | ... ... ... | Feb. | 17 | R | 5 | 36 | 41·64 | ... | 129 | 57 | 52·4 | 9·2 |
| 165 | ... ... ... | Feb. | 2 | R | 5 | 38 | 21·58 | 4 | 130 | 5 | 29·1 | 9·0 |
| | ... ... ... | „ | 4 | R | | 38 | 21·73 | 5 | | 5 | 26·4 | ... |
| 166 | 1984 Lacaille ... | Jan. | 24 | R | 5 | 40 | 39·94 | 5 | 130 | 15 | 21·1 | 7·5 |
| | ... ... ... | Feb. | 3 | R | | 40 | 39·80 | ... | | 15 | 20·6 | 8·0 |
| 167 | 54 Orionis $\chi^1$ ... | Feb. | 27 | R | 5 | 46 | 16·08 | ... | 69 | 45 | 11·5 | ... |
| | ... ... ... | Dec. | 23 | R | | 46 | 16·27 | ... | | 45 | 12·3 | ... |
| 168 | 2036 Lacaille ... | Feb. | 12 | R | 5 | 46 | 18·80 | ... | 129 | 47 | 14·8 | 8·0 |
| | ... ... ... | Dec. | 14 | M | | 46 | 18·73 | ... | | 47 | 16·1 | 8·2 |
| 169 | 58 Orionis a Var. 2 .. | Jan. | 16 | R | 5 | 47 | 45·37 | ... | 82 | 37 | 19·1 | ... |
| | ... ... ... | „ | 22 | R | | 47 | 45·44 | ... | | 37 | 18·6 | .. |
| | ... ... ... | „ | 23 | R | | 47 | 45·30 | ... | | 37 | 18·1 | ... |
| | ... ... ... | „ | 24 | R | | 47 | 45·25 | ... | | 37 | 18·6 | ... |
| | ... ... ... | „ | 30 | R | | 47 | 45·31 | ... | | 37 | 17·9 | ... |
| | ... ... ... | Feb. | 2 | R | | 47 | 45·29 | ... | | 37 | 18·3 | ... |
| | ... ... ... | „ | 3 | R | | 47 | 45·17 | ... | | 37 | 17·7 | ... |
| | ... ... ... | „ | 5 | R | | 47 | 45·27 | ... | | 37 | 18·4 | ... |
| | ... ... ... | „ | 9 | R | | 47 | 45·21 | ... | | 37 | 17·9 | ... |
| | ... ... ... | „ | 10 | R | | 47 | 45·33 | ... | | 37 | 18·0 | ... |
| | ... ... ... | Nov. | 26 | R | | 47 | 45·36 | ... | | 37 | 19·6 | .. |
| | ... ... ... | „ | 27 | R | | 47 | 45·33 | ... | | 37 | 19·8 | ... |
| 170 | ... ... ... | Feb. | 13 | R | 5 | 49 | 34·77 | ... | 130 | 1 | 20·8 | 9·4 |
| 171 | ... ... ... | Feb. | 12 | R | 5 | 52 | 39·45 | 4 | 129 | 32 | 35·1 | 9·0 |
| 172 | ... .. .. | Jan. | 24 | R | 5 | 53 | 14·82 | ... | 131 | 7 | 15·1 | 8·0 |
| | ... .. ... | Feb. | 4 | R | | 53 | 14·76 | ... | | 7 | 15·0 | .. |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | | ° | ′ | ″ | |
| 173 | 2104 Lacaille ... | Jan. 22 | R | 5 | 54 | 20·15 | 3 | 143 | 26 | 24·3 | 7·5 |
| | ... ... ... | Feb. 11 | R | | 54 | 20·12 | ... | | 26 | 24·7 | 8·7 |
| 174 | 62 Orionis $\chi^1$ .. | Dec. 23 | R | 5 | 55 | 47·02 | ... | 69 | 51 | 44·9 | ... |
| 175 | ... ... ... | Jan. 30 | R | 5 | 56 | 7·44 | ... | 129 | 57 | 13·8 | 9·5 |
| | ... ... ... | Feb. 3 | R | | 56 | 7·50 | 6 | | 57 | 11·7 | 9·0 |
| 176 | 2301 Taylor ... ... | Dec. 14 | M | 5 | 58 | 28·90 | ... | 148 | 6 | 20·5 | 6·3 |
| 177 | ... ... ... | Feb. 13 | R | 5 | 59 | 38·82 | ... | 129 | 49 | 48·7 | 8·2 |
| | ... ... ... | Nov. 26 | R | | 59 | 39·02 | 5 | | 49 | 47·0 | ... |
| 178 | 67 Orionis ν ... .. | Jan. 14 | M | 5 | 59 | 44·93 | ... | 75 | 13 | 6·4 | ... |
| | ... ... ... | „ 16 | R | | 59 | 44·99 | ... | | 13 | 8·0 | ... |
| | ... ... ... | „ 22 | R | | 59 | 44·94 | 5 | | 13 | 7·7 | ... |
| | ... ... ... | „ 23 | R | | 59 | 45·01 | ... | | 13 | 6·8 | ... |
| | ... ... ... | „ 24 | R | | 59 | 44·99 | ... | | 13 | 7·3 | ... |
| | ... ... ... | „ 29 | R | | 59 | 44·98 | ... | | 13 | 7·8 | ... |
| | ... ... ... | Feb. 2 | R | | 59 | 44·90 | ... | | 13 | 7·5 | ... |
| | ... ... .. | „ 9 | R | | 59 | 45·00 | ... | | 13 | 6·9 | ... |
| | ... ... ... | „ 10 | R | | 59 | 45·00 | ... | | 13 | 7·9 | ... |
| | ... ... ... | „ 16 | R | | 59 | 45·00 | ... | | 13 | 8·5 | ... |
| | ... ... ... | „ 23 | R | | 59 | 45·10 | ... | | 13 | 7·3 | ... |
| | ... ... ... | Mar. 2 | R | | 59 | 45·00 | ... | | 13 | 7·8 | ... |
| 179 | ... ... ... | Feb. 17 | R | 6 | 3 | 37·31 | .. | 129 | 58 | 10·8 | 8·8 |
| | ... ... ... | „ 28 | R | | 3 | 37·31 | ... | | 58 | 11·2 | 8·8 |
| 180 | ... ... ... | Feb. 11 | R | 6 | 4 | 20·19 | 5 | 128 | 2 | 33·8 | 7·0 |
| | ... ... ... | „ 14 | R | | 4 | 20·21 | ... | | 2 | 33·4 | 7·8 |
| 181 | 7 Geminorum η ... | Jan. 30 | R | 6 | 6 | 36·46 | ... | 67 | 27 | 26·4 | ... |
| | ... .. ... | Nov. 26 | R | | 6 | 36·39 | ... | | 27 | 26·5 | ... |
| | .. .. ... | „ 27 | R | | 6 | 36·39 | ... | | 27 | 27·0 | ... |
| 182 | ... ... .. | Jan. 24 | R | 6 | 8 | 47·70 | 5 | 131 | 54 | 43·4 | 9·0 |
| | ... ... .. | Feb. 4 | R | | 8 | 47·74 | ... | | 54 | 42·5 | ... |
| 183 | ... ... ... | Feb. 18 | R | 6 | 8 | 51·34 | 4 | 130 | 31 | 34·1 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 184 | 13 Geminorum μ ... | Jan. | 16 | R | 6 | 14 | 40·58 | ... | 67 | 25 | 11·5 | ... |
| | ... ... ... | „ | 30 | R | | 14 | 40·34 | ... | | 25 | 12·0 | ... |
| | ... ... ... | Feb. | 10 | R | | 14 | 40·34 | ... | | 25 | 11·6 | ... |
| | ... ... ... | „ | 12 | R | | 14 | 40·34 | ... | | 25 | 12·1 | ... |
| | ... ... ... | „ | 18 | R | | 14 | 40·36 | ... | | 25 | 11·3 | ... |
| | ... ... ... | „ | 28 | R | | 14 | 40·44 | 5 | | 25 | 11·3 | ... |
| | ... ... ... | Nov. | 26 | R | | 14 | 40·27 | .. | | 25 | 12·1 | ... |
| 185 | ... ... ... | Feb. | 14 | R | 6 | 21 | 54·66 | ... | 129 | 36 | 27·4 | 9·3 |
| | ... ... ... | „ | 28 | R | | 21 | 54·46 | 6 | | 36 | 27·6 | 9·5 |
| 186 | 2524 Taylor ... ... | Jan. | 30 | R | 6 | 23 | 26·01 | ... | 131 | 3 | 1·3 | 7·5 |
| 187 | 24 Geminorum γ ... | Jan. | 16 | R | 6 | 29 | 47·90 | ... | 73 | 29 | 14·3 | ... |
| | ... ... ... | Feb. | 10 | R | | 29 | 47·77 | ... | | 29 | 14·4 | ... |
| | ... ... ... | „ | 12 | R | | 29 | 47·72 | ... | | 29 | 15·3 | ... |
| | ... ... ... | „ | 14 | R | | 29 | 47·84 | ... | | 29 | 14·6 | ... |
| | .. ... ... | „ | 18 | R | | 29 | 47·87 | ... | | 29 | 14·7 | ... |
| | ... ... ... | „ | 21 | R | | 29 | 47·77 | ... | | 29 | 14·8 | ... |
| | ... ... ... | „ | 28 | R | | 29 | 47·85 | ... | | 29 | 14·7 | ... |
| | ... ... ... | Mar. | 2 | R | | 29 | 47·69 | ... | | 29 | 15·3 | ... |
| | ... ... ... | „ | 3 | M | | 29 | 47·81 | ... | | 29 | 15·3 | ... |
| | ... ... ... | „ | 4 | M | | 29 | 47·81 | ... | | 29 | 14·5 | ... |
| | ... ... ... | „ | 5 | M | | 29 | 47·89 | ... | | 29 | 14·6 | ... |
| | ... ... ... | „ | 6 | M | | 29 | 47·84 | ... | | 29 | 13·2 | ... |
| 188 | ... ... ... | Jan. | 17 | R | 6 | 31 | 24·41 | 5 | 140 | 0 | 10·4 | 9·0 |
| | ... ... ... | „ | 21 | R | | 31 | 24·37 | 5 | | 0 | 8·2 | 9·0 |
| 189 | ... ... ... | Jan. | 30 | R | 6 | 33 | 51·92 | 6 | 130 | 54 | 15·0 | 9·0 |
| | .. ... ... | Feb. | 4 | R | | 33 | 51·92 | ... | | 54 | 13·5 | 9·0 |
| 190 | ... ... ... | Feb. | 24 | R | 6 | 34 | 28·58 | 5 | 130 | 27 | 51·9 | 7·7 |
| 191 | 51 Cephei (Hev.) ... | Jan. | 19 | R | 6 | 35 | 8·49 | 3 | 2 | 45 | 17·5 | ... |
| | ... ... .. | „ | 20 | R | | 35 | 8·75 | 3 | | 45 | 16·7 | ... |
| | ... ... ... | „ | 24 | R | | 35 | 8·76 | 3 | | 45 | 15·1 | ... |
| | ... ... ... | Feb. | 3 | R | | 35 | 8·67 | 3 | | 45 | 10·5 | ... |
| | ... ... ... | „ | 9 | R | | 35 | 8·13 | 3 | | 45 | 16·6 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 191 | 51 Cephei (Hev.) ... | Feb. | 11 | R | 6 | 35 | 8·35 | 3 | 2 | 45 | 15·0 | ... |
| | ... ... ... | „ | 17 | R | | 35 | 8·88 | 3 | | 45 | 15·5 | ... |
| | .. ... ... | Mar. | 2 | R | | 35 | 8·30 | 2 | | 45 | 17·3 | ... |
| 192 | ... ... ... | Feb. | 13 | R | 6 | 36 | 11·01 | ... | 130 | 20 | 57·8 | 8·8 |
| | .. .. .. | „ | 14 | R | | 36 | 11·15 | 3 | | 20 | 57·0 | 9·0 |
| 193 | 31 Geminorum ξ .. | Feb. | 27 | R | 6 | 37 | 35·84 | ... | 76 | 57 | 35·9 | ... |
| | ... ... ... | „ | 28 | R | | 37 | 35·94 | ... | | 57 | 36·5 | ... |
| 194 | 9 Canis Majoris α ... | Jan. | 9 | M | 6 | 39 | 6·56 | ... | 106 | 32 | 51·7 | ... |
| 195 | .. ... ... | Feb. | 24 | R | 6 | 42 | 21·57 | ... | 130 | 56 | 51·6 | 8·8 |
| | ... .. ... | „ | 26 | R | | 42 | 21·37 | ... | | 56 | 52·4 | 9·0 |
| 196 | . ... ... | Jan. | 21 | R | 6 | 43 | 38·73 | ... | 128 | 30 | 20·3 | 9·0 |
| | ... ... ... | Feb. | 4 | R | | 43 | 38·63 | ... | | 30 | 18·9 | 8·5 |
| 197 | 2724 Taylor ... ... | Jan. | 17 | R | 6 | 44 | 52·18 | 5 | 144 | 35 | 58·2 | 9·0 |
| | ... ... ... | Feb. | 13 | R | | 44 | 52·05 | ... | | 35 | 58·9 | 8·8 |
| 198 | 2500 Lacaille ... | Feb. | 27 | R | 6 | 46 | 57·71 | 5 | 130 | 23 | 14·8 | 7·8 |
| 199 | 2516 Lacaille .. | Feb. | 17 | R | 6 | 48 | 21·45 | ... | 130 | 31 | 31·7 | 8·2 |
| | .. .. ... | „ | 23 | R | | 48 | 21·60 | 5 | | 31 | 34·4 | ... |
| 200 | ... ... ... | Feb. | 25 | R | 6 | 49 | 40·68 | 5 | 120 | 8 | 13·8 | 9·3 |
| 201 | 21 Canis Majoris ε ... | Jan. | 7 | M | | 53 | 14·57 | ... | 118 | 47 | 15·7 | ... |
| | ... ... ... | „ | 20 | R | | 53 | 14·50 | ... | | 47 | 17·0 | ... |
| | ... ... ... | Feb. | 3 | R | | 53 | 14·46 | ... | | 47 | 15·8 | ... |
| | .. .. ... | „ | 5 | P | | 53 | 14·52 | ... | | 47 | 15·6 | ... |
| | ... ... ... | „ | 13 | R | | 53 | 14·61 | ... | | 47 | 15·3 | ... |
| | ... ... ... | „ | 21 | R | | 53 | 14·54 | ... | | 47 | 16·9 | ... |
| 202 | ... ... .. | Feb. | 24 | R | 6 | 53 | 45·82 | ... | 120 | 47 | 27·6 | 9·0 |
| 203 | 2806 Taylor ... .. | Feb. | 14 | R | 6 | 55 | 58·22 | ... | 62 | 12 | 25·2 | 7·6 |
| 204 | 43 Geminorum ζ ... | Jan. | 15 | M | 6 | 55 | 58·85 | ... | 69 | 13 | 56·3 | 5·5 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 204 | 43 Geminorum ζ ... | Feb. | 26 | R | 6 | 55 | 58·83 | ... | 69 | 13 | 57·3 | ... |
| | ... ... ... | „ | 27 | R | | 55 | 58·85 | ... | | 13 | 56·5 | ... |
| | ... ... ... | Nov. | 27 | R | | 55 | 58·89 | ... | | 13 | 56·8 | ... |
| 205 | 23 Canis Majoris γ ... | Feb. | 2 | P | 6 | 57 | 33·59 | ... | 105 | 26 | 0·9 | ... |
| | ... ... ... | „ | 11 | R | | 57 | 33·63 | 5 | | 25 | 59·8 | ... |
| | ... ... ... | „ | 13 | R | | 57 | 33·65 | ... | | 26 | 0·8 | ... |
| | ... ... ... | „ | 17 | R | | 57 | 33·66 | ... | | 25 | 59·7 | ... |
| | ... ... ... | „ | 21 | R | | 57 | 33·70 | 4 | | 26 | 0·5 | ... |
| | ... ... ... | Mar. | 2 | R | | 57 | 33·53 | ... | | 26 | 2·2 | ... |
| | ... ... ... | „ | 13 | M | | 57 | 33·63 | ... | | 26 | 0·0 | ... |
| 206 | R Geminorum Var. 2. | Jan. | 17 | R | 6 | 59 | 6·24 | ... | 66 | 5 | 20·0 | 8·0 |
| | ... ... ... | „ | 20 | R | | 59 | 6·47 | 5 | | 5 | 20·8 | 8·0 |
| | ... ... ... | Feb. | 25 | R | | 59 | 6·28 | ... | | 5 | 20·1 | 7·2 |
| 207 | ... ... ... | Jan. | 16 | R | 6 | 59 | 8·11 | 5 | 66 | 59 | 50·1 | 9·0 |
| 208 | ... ... ... | Feb. | 24 | R | 6 | 59 | 47·20 | 5 | 129 | 42 | 59·4 | 7·8 |
| 209 | 2851 Taylor ... ... | Mar. | 11 | M | 7 | 0 | 48·71 | ... | 145 | 44 | 43·8 | 7·8 |
| 210 | R Canis Minoris Var. 1. | Jan. | 21 | R | 7 | 1 | 10·41 | ... | 79 | 45 | 46·7 | 8·7 |
| | ... ... ... | Feb. | 14 | R | | 1 | 10·39 | 4 | | 45 | 46·2 | 7·9 |
| | ... ... ... | „ | 23 | R | | 1 | 10·39 | 6 | | 45 | 46·7 | 8·5 |
| 211 | ... ... ... | Mar. | 16 | M | 7 | 4 | 55·62 | 5 | 130 | 42 | 26·1 | 9·0 |
| 212 | 2899 Taylor ... ... | Feb. | 5 | P | 7 | 5 | 45·64 | ... | 130 | 8 | 42·2 | 8·3 |
| 213 | ... .. ... | Feb. | 27 | R | 7 | 5 | 49·92 | 5 | 129 | 23 | 7·0 | 9·0 |
| 214 | ... ... ... | Feb. | 25 | R | 7 | 6 | 36·63 | 5 | 129 | 2 | 39·0 | 7·3 |
| 215 | 2696 Lacaille ... | Jan. | 21 | R | 7 | 9 | 20·62 | ... | 140 | 58 | 44·6 | 8·5 |
| | ... ... ... | Feb. | 18 | R | | 9 | 20·61 | ... | | 58 | 46·6 | 8·3 |
| 216 | 2940 Taylor .. ... | Jan. | 23 | R | 7 | 9 | 26·25 | ... | 129 | 57 | 35·9 | 8·5 |
| 217 | 64 Geminorum ... | Nov. | 27 | R | 7 | 10 | 13·00 | ... | 73 | 12 | 37·4 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension. 1863. | | | No of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | | ° | ′ | ″ | |
| 218 | ... ... ... | Mar. 13 | M | 7 | 10 | 14·44 | ... | 131 | 52 | 5·8 | 9·5 |
| 219 | 55 Geminorum δ .. | Feb. 2 | P | 7 | 11 | 56·36 | ... | 67 | 46 | 7·2 | ... |
| | ... ... ... | „ 3 | R | | 11 | 56·31 | ... | | 46 | 7·3 | ... |
| | ... ... ... | „ 4 | R | | 11 | 56·32 | ... | | 36 | 8·7 | ... |
| | ... ... ... | „ 11 | R | | 11 | 56·25 | ... | | 46 | 8·3 | ... |
| | ... ... ... | „ 13 | R | | 11 | 56·27 | ... | | 46 | 9·5 | ... |
| | ... ... ... | „ 17 | R | | 11 | 56·35 | ... | | 46 | 9·1 | ... |
| | ... ... ... | „ 23 | R | | 11 | 56·38 | ... | | 46 | 8·5 | ... |
| | ... ... ... | „ 24 | R | | 11 | 56·30 | ... | | 46 | 8·2 | ... |
| | ... ... ... | „ 25 | R | | 11 | 56·22 | ... | | 46 | 8·6 | ... |
| | ... ... ... | „ 26 | R | | 11 | 56·33 | ... | | 46 | 9·2 | ... |
| | ... ... ... | „ 28 | R | | 11 | 56·31 | ... | | 46 | 8·5 | ... |
| | ... ... ... | Mar. 2 | R | | 11 | 56·23 | ... | | 46 | 9·0 | ... |
| | ... ... ... | „ 3 | M | | 11 | 56·28 | ... | | 46 | 8·7 | ... |
| | ... ... ... | „ 4 | M | | 11 | 56·36 | ... | | 46 | 9·2 | ... |
| | ... ... ... | „ 5 | M | | 11 | 56·31 | ... | | 46 | 9·8 | ... |
| | ... ... ... | „ 6 | M | | 11 | 56·23 | ... | | 46 | 8·8 | ... |
| | ... ... ... | „ 19 | M | | 11 | 56·30 | ... | | 46 | 9·0 | ... |
| 220 | ... ... ... | Feb. 27 | R | 7 | 12 | 59·12 | 5 | 129 | 15 | 51·3 | 9·5 |
| 221 | ... ... ... | Mar. 14 | M | 7 | 14 | 28·07 | ... | 138 | 49 | 29·4 | 8·0 |
| 222 | ... ... ... | Jan. 23 | R | 7 | 17 | 22·76 | 6 | 129 | 13 | 19·6 | 8·5 |
| | ... ... ... | Feb. 12 | R | | 17 | 22·78 | ... | | 13 | 19·4 | 8·8 |
| 223 | ... ... ... | Feb. 23 | R | 7 | 18 | 1·93 | 4 | 129 | 42 | 29·6 | 9·6 |
| | ... ... ... | „ 24 | R | | 18 | 1·82 | 5 | | 42 | 26·3 | 9·8 |
| 224 | 3043 Taylor ... ... | Feb. 25 | R | 7 | 19 | 11·32 | 5 | 129 | 16 | 19·5 | 6·8 |
| | ... ... ... | „ 27 | R | | 19 | 11·35 | ... | | 16 | 15·2 | 7·3 |
| 225 | 2807 Lacaille ... | Jan. 21 | R | 7 | 19 | 30·96 | ... | 142 | 15 | 14·1 | 8·0 |
| | ... ... ... | Feb. 18 | R | | 19 | 31·17 | ... | | 15 | 15·0 | ... |
| 226 | ... ... ... | Mar. 17 | M | 7 | 19 | 33·48 | ... | 123 | 7 | 52·1 | 9·0 |
| 227 | ... ... ... | Mar. 16 | M | 7 | 21 | 32·00 | ... | 131 | 50 | 19·2 | 7·0 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 228 | S Canis Minoris Var. 2. | Feb. | 14 | R | 7 | 25 | 17·00 | 3 | 81 | 23 | 34·9 | 10·0 |
| | ... ... ... | „ | 23 | R | | 25 | 16·84 | 4 | | 23 | 33·9 | 9·5 |
| | ... ... ... | „ | 25 | R | | 25 | 16·99 | 5 | | 23 | 34·4 | 9·8 |
| 229 | 68 Geminorum ... | Jan. | 23 | R | 7 | 25 | 47·25 | ... | 73 | 52 | 54·5 | 6·5 |
| | ... ... ... | Feb. | 28 | R | | 25 | 47·21 | ... | | 52 | 54·9 | ... |
| 230 | 66 Geminorum α[2] ... | Feb. | 2 | P | 7 | 25 | 51·35 | ... | 57 | 48 | 53·6 | ... |
| | ... ... ... | „ | 5 | P | | 25 | 51·44 | ... | | 48 | 52·6 | ... |
| | ... ... ... | „ | 13 | R | | 25 | 51·25 | 6 | | 48 | 54·6 | ... |
| | ... ... ... | „ | 17 | R | | 25 | 51·23 | ... | | 48 | 53·3 | ... |
| | ... ... ... | „ | 24 | R | | 25 | 51·28 | ... | | 48 | 52·9 | ... |
| | ... ... ... | „ | 26 | R | | 25 | 51·15 | ... | | 48 | 53·9 | ... |
| | ... ... ... | „ | 27 | R | | 25 | 51·16 | ... | | 48 | 53·1 | ... |
| | ... ... ... | Mar. | 2 | P | | 25 | 51·37 | ... | | 48 | 53·8 | ... |
| | ... ... ... | „ | 6 | M | | 25 | 51·24 | ... | | 48 | 55·0 | ... |
| | ... ... ... | „ | 9 | M | | 25 | 51·23 | ... | | 48 | 53·8 | ... |
| | ... ... ... | „ | 18 | M | | 25 | 51·19 | ... | | 48 | 55·3 | ... |
| | ... ... ... | „ | 19 | M | | 25 | 51·15 | ... | | 48 | 54·1 | ... |
| 231 | ... ... ... | Jan. | 19 | R | 7 | 26 | 2·73 | 5 | 142 | 5 | 45·3 | 9·0 |
| 232 | ... ... ... | Mar. | 17 | M | 7 | 26 | 46·17 | ... | 123 | 7 | 15·0 | 9·2 |
| 233 | 3126 Taylor .. ... | Jan. | 21 | R | 7 | 29 | 32·74 | ... | 143 | 15 | 35·0 | 7·5 |
| 234 | 10 Canis Minoris α ... | Jan. | 7 | M | 7 | 32 | 7·64 | ... | 84 | 25 | 35·9 | ... |
| | ... ... ... | Feb. | 4 | R | | 32 | 7·80 | ... | | 25 | 38·4 | ... |
| | ... ... ... | „ | 12 | R | | 32 | 7·75 | ... | | 25 | 38·0 | ... |
| | ... ... ... | „ | 24 | R | | 32 | 7·73 | ... | | 25 | 37·0 | ... |
| | ... ... ... | „ | 26 | R | | 32 | 7·80 | ... | | 25 | 37·4 | ... |
| | ... ... ... | „ | 27 | R | | 32 | 7·73 | ... | | 25 | 36·3 | ... |
| | ... ... ... | Mar. | 3 | M | | 32 | 7·72 | ... | | 25 | 37·3 | ... |
| | ... ... ... | „ | 4 | M | | 32 | 7·65 | ... | | 25 | 36·8 | ... |
| | ... ... ... | „ | 5 | M | | 32 | 7·67 | ... | | 25 | 37·7 | ... |
| | ... ... ... | „ | 6 | M | | 32 | 7·68 | ... | | 25 | 36·6 | ... |
| | ... ... ... | „ | 9 | M | | 32 | 7·65 | ... | | 25 | 37·0 | ... |
| | ... ... ... | „ | 11 | M | | 32 | 7·71 | .. | | 25 | 37·1 | ... |
| | ... ... ... | „ | 12 | M | | 32 | 7·66 | ... | | 25 | 38·2 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | Observer | Mean Right Ascension. 1863. h. | m. | s. | No. of Wires | Mean Polar Distance. 1863. ° | ′ | ″ | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 234 | 10 Canis Minoris α ... | Jan. 18 | M | 7 | 32 | 7·72 | ... | 84 | 25 | 37·4 | ... |
| | ... ... ... | " 19 | M | | 32 | 7·85 | ... | | 25 | 37·8 | ... |
| 235 | 2893 Lalande ... | Jan. 15 | M | 7 | 32 | 41·06 | ... | 121 | 49 | 18·1 | 8·0 |
| 236 | 2910 Lacaille ... | Jan. 19 | R | 7 | 33 | 16·04 | 3 | 143 | 52 | 47·6 | 8·5 |
| 237 | ... ... ... | Jan. 20 | R | 7 | 35 | 27·60 | 5 | 144 | 19 | 34·5 | 8·5 |
| 238 | 78 Geminorum β ... | Feb. 4 | R | 7 | 36 | 55·69 | ... | 61 | 38 | 46·8 | ... |
| | ... ... ... | " 5 | P | | 36 | 55·94 | ... | | 38 | 46·1 | ... |
| | ... ... ... | " 11 | R | | 36 | 55·75 | ... | | 38 | 46·9 | ... |
| | ... ... ... | " 25 | R | | 36 | 55·72 | ... | | 38 | 46·8 | ... |
| | ... ... ... | " 26 | R | | 36 | 55·67 | 5 | | 38 | 48·3 | ... |
| | ... ... ... | " 27 | R | | 36 | 55·74 | ... | | 38 | 46·7 | ... |
| | ... ... ... | Mar. 2 | P | | 36 | 55·63 | ... | | 38 | 47·7 | ... |
| | ... ... ... | " 11 | M | | 36 | 55·75 | ... | | 38 | 47·5 | ... |
| | ... ... ... | " 12 | M | | 36 | 55·59 | ... | | 38 | 47·9 | ... |
| | ... ... ... | " 13 | M | | 36 | 55·79 | ... | | 38 | 47·6 | ... |
| 239 | ... ... ... | Jan. 23 | R | 7 | 37 | 44·52 | ... | 128 | 52 | 45·1 | 8·0 |
| | ... ... ... | " 24 | R | | 37 | 44·49 | 5 | | 52 | 45·4 | 7·0 |
| 240 | 81 Geminorum η ... | Feb. 2 | S | 7 | 38 | 11·35 | ... | 71 | 9 | 33·3 | ... |
| | ... ... ... | " 28 | R | | 38 | 11·35 | ... | | 9 | 33·6 | ... |
| 241 | 2971 Lacaille... ... | Jan. 19 | R | 7 | 40 | 16·90 | 4 | 143 | 54 | 47·6 | 7·5 |
| 242 | T Geminorum Var. 4.. | Jan. 16 | R | 7 | 41 | 4·50 | ... | 65 | 55 | 40·1 | 8·7 |
| | ... ... ... | Feb. 23 | R | | 41 | 4·50 | ... | | 55 | 41·3 | 7·8 |
| 243 | ... ... ... | Jan. 20 | R | 7 | 41 | 30·83 | 5 | 144 | 18 | 31·9 | 8·0 |
| 244 | 3013 Lacaille... ... | Jan. 21 | R | 7 | 43 | 27·42 | 3 | 142 | 0 | 32·0 | 7·0 |
| 245 | 49 R. P. L. ... ... | Feb. 4 | R | 7 | 43 | 39·63 | 3 | 5 | 33 | 32·7 | ... |
| 246 | ... ... ... | Jan. 23 | R | 7 | 45 | 4·70 | 5 | 129 | 24 | 42·9 | 8·0 |
| | ... ... ... | Feb. 10 | R | | 45 | 4·43 | 5 | | 24 | 41·9 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 247 | 1791 Brisbane ... | Jan. | 20 | R | 7 | 46 | 17·14 | ... | 144 | 24 | 30·2 | 8·0 |
| 248 | 3293 Taylor ... ... | Jan. | 19 | R | 7 | 46 | 29·16 | 5 | 144 | 43 | 55·7 | 8·0 |
| 249 | ... ... ... | Feb. | 26 | R | 7 | 48 | 56·74 | ... | 130 | 25 | 52·8 | 9·1 |
| 250 | 1 Cancri ... ... | Feb. | 2 | S | 7 | 49 | 12·66 | ... | 73 | 50 | 48·4 | ... |
| 251 | ... ... ... | Jan. | 23 | R | 7 | 49 | 49·23 | 5 | 120 | 17 | 12·4 | 8·5 |
| | ... ... ... | ,, | 24 | R | | 49 | 49·14 | 5 | | 17 | 13·4 | 8·5 |
| 252 | ... ... ... | Feb. | 18 | R | 7 | 50 | 2·96 | 3 | 120 | 38 | 16·1 | ... |
| 253 | 3330 Taylor ... ... | Jan. | 20 | R | 7 | 51 | 48·84 | ... | 144 | 16 | 45·2 | 8·0 |
| 254 | ... ... ... | Jan. | 19 | R | 7 | 52 | 52·87 | ... | 144 | 41 | 30·7 | 9·0 |
| 255 | 6 Cancri ... ... | Feb. | 5 | P | 7 | 55 | 6·14 | ... | 61 | 49 | 29·0 | 6·0 |
| | ... ... ... | ,, | 14 | R | | 55 | 5·90 | 5 | | 49 | 29·4 | ... |
| | ... ... ... | ,, | 23 | R | | 55 | 5·98 | ... | | 49 | 29·8 | ... |
| | ... ... ... | ,, | 24 | R | | 55 | 6·00 | ... | | 49 | 29·3 | ... |
| | ... ... ... | ,, | 28 | R | | 55 | 5·91 | ... | | 49 | 30·2 | ... |
| | ... ... ... | Mar. | 2 | P | | 55 | 6·17 | ... | | 49 | 30·8 | ... |
| | ... ... ... | ,, | 11 | M | | 55 | 5·93 | ... | | 49 | 30·5 | ... |
| | ... ... ... | ,, | 14 | M | | 55 | 5·96 | ... | | 49 | 30·1 | ... |
| | ... ... ... | ,, | 17 | M | | 55 | 5·95 | 5 | | 49 | 31·0 | ... |
| 256 | 3373 Taylor ... ... | Jan. | 21 | R | 7 | 55 | 12·34 | ... | 144 | 11 | 41·1 | 8·0 |
| 257 | ... ... ... | Jan. | 22 | R | 7 | 55 | 17·99 | ... | 123 | 30 | 2·8 | 8·0 |
| | ... ... ... | Feb. | 10 | R | | 55 | 17·96 | 6 | | 30 | 0·6 | ... |
| 258 | ... ... ... | Jan. | 23 | R | 7 | 56 | 29·34 | ... | 120 | 21 | 9·1 | 9·5 |
| 259 | 15 Argus ρ ... .. | Feb. | 11 | R | 8 | 1 | 42·63 | ... | 113 | 54 | 41·2 | ... |
| | ... ... ... | ,, | 12 | R | | 1 | 42·64 | ... | | 54 | 41·7 | ... |
| | ... ... ... | ,, | 14 | R | | 1 | 42·67 | ... | | 54 | 41·4 | ... |
| | ... ... ... | Mar. | 9 | M | | 1 | 42·68 | ... | | 54 | 41·2 | ... |
| | ... ... ... | ,, | 12 | M | | 1 | 42·71 | ... | | 54 | 42·2 | ... |
| | ... ... ... | ,, | 14 | M | | 1 | 42·64 | ... | | 54 | 42·0 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 260 | ... ... ... | Mar. | 13 | M | 8 | 1 | 59·94 | ... | 113 | 46 | 37·3 | 9·7 |
| 261 | ... ... ... | Jan. | 30 | R | 8 | 2 | 9·61 | 6 | 128 | 30 | 18·0 | 9·0 |
| | ... ... ... | Feb. | 10 | R | | 2 | 9·82 | 5 | | 30 | 14·6 | 9·3 |
| 262 | 16 Cancri ζ ... ... | Jan. | 6 | M | 8 | 4 | 20·91 | ... | 71 | 56 | 29·8 | ... |
| 263 | ... ... ... | Feb. | 17 | R | 8 | 5 | 17·17 | 4 | 130 | 45 | 12·2 | 8·3 |
| 264 | R Cancri Var. 1 ... | Jan. | 16 | R | 8 | 9 | 0·44 | ... | 77 | 51 | 22·1 | 8·0 |
| | ... ... ... | Feb. | 5 | P | | 9 | 0·85 | ... | | 51 | 20·4 | 7·0 |
| | ... ... ... | ,, | 14 | R | | 9 | 0·53 | 5 | | 51 | 22·6 | 8·0 |
| 265 | ... ... ... | Mar. | 28 | R | 8 | 9 | 20·80 | 4 | 74 | 15 | 52·6 | 9·4 |
| | ... ... ... | ,, | 30 | R | | 9 | 21·00 | 4 | | 15 | 51·0 | 9·2 |
| 266 | ... ... ... | Mar. | 17 | M | 8 | 9 | 51·05 | ... | 74 | 16 | 2·7 | 9·3 |
| 267 | 10224 Lalande ... | Mar. | 18 | M | 8 | 10 | 30·18 | ... | 73 | 54 | 0·8 | 7·0 |
| 268 | ... ... ... | Feb. | 13 | R | 8 | 12 | 15·14 | ... | 128 | 43 | 30·2 | 8·3 |
| 269 | ... ... ... | Feb. | 10 | R | 8 | 12 | 43·23 | ... | 128 | 40 | 43·7 | 8·8 |
| 270 | ... ... ... | Feb. | 18 | R | 8 | 12 | 53·61 | 5 | 131 | 17 | 1·7 | 9·3 |
| 271 | ... ... ... | Feb. | 17 | R | 8 | 12 | 55·28 | 5 | 130 | 45 | 19·7 | 9·5 |
| 272 | ... ... ... | Mar. | 16 | M | 8 | 13 | 40·21 | ... | 133 | 17 | 7·4 | 9·5 |
| 273 | 20 Cancri d[1] ... | Jan. | 6 | M | 8 | 15 | 30·83 | ... | 71 | 13 | 50·9 | ... |
| 274 | ... ... ... | Jan. | 16 | R | 8 | 17 | 21·94 | ... | 141 | 15 | 41·3 | 9·0 |
| 275 | 3620 Taylor ... ... | Feb. | 17 | R | 8 | 23 | 8·67 | ... | 130 | 47 | 35·5 | 8·0 |
| 276 | ... ... ... | Feb. | 10 | R | 8 | 23 | 30·10 | 5 | 128 | 38 | 23·3 | 8·5 |
| | ... ... ... | ,, | 13 | R | | 23 | 30·03 | ... | | 38 | 24·2 | 9·0 |
| 277 | 31 Cancri θ ... ... | Mar. | 2 | P | 8 | 23 | 47·14 | ... | 71 | 26 | 44·0 | ... |

*Separate Results of Madras Meridian Circle Observations in* 1863.

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 278 | 33 Cancri η ... ... | Feb. | 2 | S | 8 | 24 | 46·87 | ... | 69 | 5 | 46·0 | ... |
| | ... ... ... | ,, | 3 | R | | 24 | 46·93 | ... | | 5 | 44·8 | ... |
| | ... ... ... | ,, | 25 | R | | 24 | 46·94 | ... | | 5 | 47·6 | ... |
| | ... ... ... | Mar. | 13 | M | | 24 | 46·97 | ... | | 5 | 46·3 | ... |
| | ... ... ... | ,, | 14 | M | | 24 | 47·00 | ... | | 5 | 46·4 | ... |
| | ... ... ... | ,, | 16 | M | | 24 | 46·88 | ... | | 5 | 46·1 | ... |
| | ... ... ... | ,, | 18 | M | | 24 | 47·04 | ... | | 5 | 47·4 | ... |
| | ... ... ... | ,, | 23 | R | | 24 | 46·88 | ... | | 5 | 46·5 | ... |
| 279 | 3651 Taylor ... ... | Feb. | 18 | R | 8 | 25 | 37·47 | ... | 130 | 3 | 8·0 | 7·7 |
| 280 | ... ... ... | Jan. | 30 | R | 8 | 26 | 23·33 | 4 | 130 | 30 | 18·1 | 9·0 |
| 281 | ... ... ... | Feb. | 10 | R | 8 | 30 | 11·64 | 3 | 128 | 46 | 55·0 | 8·5 |
| | ... ... ... | ,, | 17 | R | | 30 | 11·78 | ... | | 46 | 56·0 | 8·3 |
| 282 | 3710 Taylor ... ... | Mar. | 11 | M | 8 | 31 | 22·50 | ... | 141 | 20 | 51·9 | 8·0 |
| 283 | ... ... ... | Mar. | 25 | R | 8 | 33 | 7·28 | ... | 129 | 23 | 15·2 | 8·5 |
| | ... ... ... | ,, | 26 | R | | 33 | 7·25 | ... | | 23 | 14·8 | 8·8 |
| 284 | S Cancri Var. 2 ... | Jan. | 16 | R | 8 | 36 | 6·46 | 4 | 70 | 28 | 32·4 | 10·0 |
| | ... ... ... | Feb. | 11 | R | | 36 | 6·26 | 5 | | 28 | 32·6 | 8·0 |
| | ... ... ... | ,, | 18 | R | | 36 | 6·45 | ... | | 28 | 32·5 | 7·9 |
| | ... ... ... | Mar. | 24 | R | | 36 | 6·40 | ... | | 28 | 32·9 | 8·0 |
| 285 | 3767 Taylor ... ... | Mar. | 4 | M | 8 | 36 | 18·39 | ... | 149 | 50 | 2·8 | 8·5 |
| 286 | 47 Cancri δ ... ... | Feb. | 3 | R | 8 | 36 | 53·81 | ... | 71 | 30 | 42·0 | ... |
| 287 | ... ... ... | Mar. | 6 | M | 8 | 37 | 48·00 | 5 | 136 | 5 | 19·7 | 8·9 |
| 288 | 11 Hydræ ε ... ... | Feb. | 5 | M | 8 | 39 | 31·05 | ... | 88 | 4 | 52·0 | ... |
| | ... ... ... | ,, | 25 | R | | 39 | 31·16 | ... | | 4 | 53·0 | ... |
| | ... ... ... | Mar. | 11 | M | | 39 | 31·14 | ... | | 4 | 52·9 | ... |
| | ... ... ... | ,, | 14 | M | | 39 | 31·06 | ... | | 4 | 51·6 | ... |
| | ... ... ... | ,, | 16 | M | | 39 | 31·17 | ... | | 4 | 53·9 | ... |
| | ... ... ... | ,, | 17 | M | | 39 | 31·07 | ... | | 4 | 53·8 | — |
| | ... ... ... | ,, | 18 | M | | 39 | 31·03 | ... | | 4 | 54·2 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 288 | 11 Hydræ ε ... ... | Mar. | 19 | M | 8 | 39 | 31·01 | ... | 83 | 4 | 51·9 | ... |
| | ... ... ... | „ | 20 | R | | 39 | 31·11 | ... | | 4 | 50·7 | ... |
| | ... ... ... | „ | 23 | R | | 39 | 31·03 | ... | | 4 | 52·0 | ... |
| | ... ... ... | „ | 25 | R | | 39 | 31·08 | ... | | 4 | 51·6 | ... |
| | ... ... ... | „ | 27 | R | | 39 | 31·08 | ... | | 4 | 50·9 | ... |
| 289 | ... ... ... | Mar. | 26 | R | 8 | 40 | 27·06 | ... | 129 | 15 | 20·5 | 8·3 |
| 290 | 60 R. P. L. ... ... | Feb. | 27 | R | 8 | 46 | 8·40 | 3 | 5 | 16 | 43·0 | ... |
| | ... ... ... | Mar. | 5 | M | | 46 | 7·80 | 3 | | 16 | 41·2 | ... |
| | ... ... ... | „ | 9 | M | | 46 | 9·33 | 3 | | 16 | 42·1 | ... |
| | ... ... ... | „ | 18 | M | | 46 | 9·20 | 3 | | 16 | 41·6 | ... |
| | ... ... *s.p.* | Sep. | 14 | M | | 46 | 8·89 | 2 | | 16 | 40·2 | ... |
| | ... ... *s.p.* | Oct. | 6 | M | | 46 | 8·70 | 2 | | 16 | 41·0 | ... |
| 291 | S Hydræ Var. 3 ... | Mar. | 23 | R | 8 | 46 | 25·03 | 4 | 86 | 24 | 59·4 | 10·3 |
| | ... ... ... | „ | 24 | R | | 46 | 25·27 | 5 | | 24 | 59·7 | 10·3 |
| | ... ... ... | „ | 27 | R | | 46 | 25·27 | 5 | | 24 | 58·6 | 10·2 |
| 292 | ... ... ... | Mar. | 13 | M | 8 | 47 | 18·74 | ... | 69 | 36 | 57·0 | 9·6 |
| 293 | 3886 Taylor... ... | Mar. | 6 | M | 8 | 48 | 12·00 | ... | 136 | 52 | 39·3 | 8·0 |
| 294 | T Cancri Var. 3 ... | Feb. | 25 | R | 8 | 48 | 50·46 | 5 | 69 | 37 | 45·8 | 9·6 |
| | ... ... ... | Mar. | 11 | M | | 48 | 50·44 | ... | | 37 | 44·3 | 9·7 |
| | ... ... ... | „ | 26 | R | | 48 | 50·42 | ... | | 37 | 45·1 | 9·0 |
| 295 | T Hydræ Var. 4 ... | Jan. | 16 | R | 8 | 48 | 59·93 | 4 | 98 | 37 | 13·6 | 9·7 |
| 296 | ... ... ... | Mar. | 16 | M | 8 | 49 | 11·22 | ... | 133 | 54 | 6·3 | 7·5 |
| 297 | 66 Cancri α ... ... | Jan. | 7 | M | 8 | 50 | 59·60 | ... | 77 | 36 | 51·1 | ... |
| | ... ... ... | Feb. | 2 | S | | 50 | 59·53 | ... | | 36 | 51·7 | ... |
| | ... ... ... | Mar. | 30 | R | | 50 | 59·60 | ... | | 36 | 52·3 | ... |
| 298 | ... ... ... | Mar. | 14 | M | 8 | 51 | 52·86 | ... | 137 | 24 | 27·1 | 9·7 |
| 299 | ... ... ... | Feb. | 23 | R | 8 | 54 | 18·07 | 5 | 130 | 34 | 35·2 | 8·9 |
| | ... ... ... | Mar. | 20 | R | | 54 | 18·22 | ... | | 34 | 38·0 | 8·7 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 300 | ... ... ... | Apl. | 9 | M | 8 | 54 | 55·91 | ... | 142 | 48 | 42·8 | 9·0 |
| 301 | 3941 Taylor ... ... | Apl. | 8 | M | 8 | 54 | 57·63 | ... | 144 | 6 | 8·7 | 8·8 |
| 302 | ... ... ... | Apl. | 10 | M | 8 | 56 | 35·61 | 5 | 146 | 45 | 47·0 | 9·3 |
| 303 | ... ... ... | Mar. | 23 | R | 8 | 56 | 40·93 | 5 | 129 | 17 | 57·6 | 9·6 |
| 304 | ... ... ... | Jan. | 16 | R | 8 | 59 | 4·56 | ... | 145 | 37 | 55·2 | 9·0 |
| 305 | 76 Cancri κ ... ... | Jan. | 7 | M | 9 | 0 | 19·59 | ... | 78 | 46 | 56·8 | ... |
| | ... ... ... | Mar. | 2 | P | | 0 | 19·71 | ... | | 46 | 58·5 | ... |
| 306 | ... ... ... | Apl. | 11 | M | 9 | 1 | 2·20 | ... | 150 | 1 | 16·2 | 8·0 |
| 307 | ... ... ... | Feb. | 23 | R | 9 | 1 | 47·87 | 5 | 128 | 56 | 54·0 | 7·5 |
| | ... ... ... | Mar. | 31 | R | | 1 | 47·79 | ... | | 56 | 55·2 | 7·9 |
| 308 | ... ... ... | Mar. | 24 | R | 9 | 2 | 12·49 | 3 | 71 | 26 | 18·8 | 10·5 |
| 309 | ... ... ... | Feb. | 24 | R | 9 | 4 | 21·33 | 5 | 130 | 29 | 24·9 | ... |
| | ... ... ... | " | 28 | R | | 4 | 21·60 | ... | | 29 | 24·8 | 9·3 |
| 310 | 3713 Lacaille ... | Apl. | 13 | M | 9 | 4 | 32·87 | ... | 143 | 48 | 57·5 | 7·8 |
| 311 | ... ... ... | Jan. | 16 | R | 9 | 6 | 25·31 | 3 | 142 | 29 | 13·3 | 8·3 |
| | ... ... ... | Feb. | 11 | R | | 6 | 25·01 | ... | | 29 | 12·9 | 8·4 |
| 312 | ... ... ... | Mar. | 4 | M | 9 | 6 | 28·79 | ... | 138 | 41 | 16·6 | 8·9 |
| 313 | ... ... ... | Mar. | 3 | M | 9 | 8 | 12·53 | 5 | 148 | 14 | 1·3 | 9·0 |
| 314 | ... ... ... | Feb. | 25 | R | 9 | 9 | 21·59 | 2 | 73 | 52 | 23·0 | 10·2 |
| | ... ... ... | Mar. | 24 | R | | 9 | 21·55 | 3 | | 52 | 26·3 | 10·3 |
| 315 | 83 Cancri ... ... | Feb. | 2 | S | 9 | 11 | 19·96 | 6 | 71 | 42 | 58·5 | ... |
| | ... ... ... | " | 3 | R | | 11 | 19·94 | ... | | 42 | 57·2 | ... |
| | ... ... ... | " | 5 | M | | 11 | 19·76 | ... | | 42 | 56·6 | ... |
| | ... ... ... | Mar. | 2 | P | | 11 | 20·08 | ... | | 42 | 59·4 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 315 | 83 Cancri ... ... | Mar. | 9 | M | 9 | 11 | 19·72 | ... | 70 | 42 | 57·9 | ... |
| | ... ... ... | „ | 16 | M | | 11 | 19·83 | ... | | 42 | 59·4 | ... |
| | ... ... ... | „ | 17 | M | | 11 | 19·79 | 5 | | 42 | 58·3 | ... |
| | ... ... ... | „ | 20 | R | | 11 | 19·81 | ... | | 42 | 58·2 | ... |
| | ... ... ... | „ | 23 | R | | 11 | 19·89 | ... | | 42 | 58·7 | ... |
| | ... ... ... | „ | 25 | R | | 11 | 19·86 | ... | | 42 | 57·7 | ... |
| | ... ... ... | „ | 28 | R | | 11 | 19·85 | ... | | 42 | 58·3 | ... |
| | ... ... ... | „ | 31 | R | | 11 | 19·83 | 5 | | 42 | 58·5 | ... |
| | ... ... ... | Apl. | 1 | R | | 11 | 19·96 | ... | | 42 | 58·0 | ... |
| 316 | ... ... ... | Feb. | 23 | R | 9 | 11 | 46·21 | 5 | 130 | 44 | 53·2 | ... |
| 317 | ... ... ... | Jan. | 16 | R | 9 | 14 | 32·58 | ... | 24 | 50 | 15·3 | 9·0 |
| | ... ... ... | Feb. | 27 | R | | 14 | 32·61 | ... | | 50 | 14·1 | 8·7 |
| | ... ... ... | „ | 28 | R | | 14 | 32·63 | 5 | | 50 | 13·0 | 8·9 |
| 318 | ... ... ... | Apl. | 13 | M | 9 | 15 | 13·69 | ... | 143 | 43 | 26·1 | 9·2 |
| 319 | ... ... ... | Feb. | 11 | R | 9 | 15 | 49·83 | 5 | 25 | 4 | 10·8 | 9·0 |
| | ... ... ... | „ | 26 | R | | 15 | 50·01 | ... | | 4 | 11·8 | 9·3 |
| 320 | ... ... ... | Mar. | 5 | M | 9 | 16 | 3·99 | ... | 140 | 7 | 19·9 | 9·0 |
| 321 | ... ... ... | Mar. | 4 | M | 9 | 16 | 15·59 | ... | 139 | 0 | 47·4 | 9·5 |
| 322 | 0681 O. A. N. ... | Mar. | 13 | M | 9 | 17 | 32·56 | ... | 25 | 8 | 29·2 | 9·3 |
| 323 | 30 Hydræ α ... ... | Feb. | 6 | M | 9 | 20 | 51·16 | ... | 98 | 3 | 59·0 | ... |
| | ... ... ... | Mar. | 16 | M | | 20 | 51·13 | ... | | 4 | 1·0 | ... |
| | ... ... ... | „ | 17 | M | | 20 | 51·39 | ... | | 4 | 0·3 | ... |
| | ... ... ... | „ | 20 | R | | 20 | 51·26 | ... | | 4 | 0·8 | ... |
| | ... ... ... | „ | 24 | R | | 20 | 51·21 | ... | | 3 | 59·9 | ... |
| | ... ... ... | „ | 25 | R | | 20 | 51·24 | ... | | 4 | 0·2 | ... |
| | ... ... ... | „ | 26 | R | | 20 | 51·24 | ... | | 4 | 0·8 | ... |
| | ... ... ... | „ | 28 | R | | 20 | 51·20 | ... | | 4 | 0·3 | ... |
| | ... ... ... | „ | 30 | R | | 20 | 51·29 | ... | | 4 | 0·2 | ... |
| | ... ... ... | Apl. | 1 | R | | 20 | 51·31 | ... | | 3 | 59·8 | ... |
| | ... ... ... | „ | 14 | M | | 20 | 51·29 | ... | | 4 | 0·7 | ... |
| | ... ... ... | „ | 15 | M | | 20 | 51·38 | ... | | 4 | 59·8 | ... |
| | ... ... ... | „ | 28 | M | | 20 | 51·17 | ... | | 3 | 58·8 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | Observed. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | | ° | ′ | ″ | |
| 324 | 2 Leonis ω ... ... | Mar. 2 | P | 9 | 21 | 7·29 | ... | 80 | 10 | 56·3 | ... |
| 325 | 3853 Lacaille ... | Mar. 18 | M | 9 | 22 | 29·81 | ... | 131 | 59 | 2·0 | 8·0 |
| 326 | ... ... ... | Feb. 26 | R | 9 | 24 | 30·40 | ... | 130 | 25 | 54·2 | 9·0 |
| | ... ... ... | " 28 | R | | 24 | 30·50 | 6 | | 25 | 54·6 | 9·3 |
| | ... ... ... | Mar. 27 | R | | 24 | 30·35 | ... | | 25 | 53·3 | 9·0 |
| 327 | 6 Leonis *h* ... ... | Apl. 27 | M | 9 | 24 | 36·90 | ... | 79 | 40 | 54·5 | 6·0 |
| 328 | 3886 Lacaille ... | Mar. 5 | M | 9 | 24 | 41·23 | 5 | 141 | 49 | 33·3 | 8·0 |
| 329 | 3887 Lacaille ... | Mar. 4 | M | 9 | 24 | 53·13 | 3 | 140 | 0 | 16·9 | 8·0 |
| 330 | ... ... ... | Mar. 6 | M | 9 | 26 | 53·60 | ... | 144 | 57 | 51·3 | 9·0 |
| 331 | ... ... ... | Mar. 23 | R | 9 | 28 | 52·41 | ... | 128 | 46 | 39·2 | 8·8 |
| 332 | ... ... ... | Mar. 24 | R | 9 | 28 | 58·85 | ... | 128 | 49 | 16·2 | 8·0 |
| 333 | 10 Leonis ... ... | Feb. 3 | R | 9 | 29 | 58·38 | ... | 82 | 33 | 6·0 | ... |
| | ... ... ... | " 4 | R | | 29 | 58·60 | ... | | 33 | 7·3 | ... |
| 334 | 4259 Taylor ... ... | Mar. 7 | M | 9 | 31 | 55·33 | ... | 138 | 44 | 31·9 | 8·0 |
| 335 | ... ... ... | Mar. 25 | R | 9 | 32 | 25·09 | ... | 129 | 53 | 36·6 | 8·7 |
| 336 | 69 R. P. L. ... *s.p.* | Oct. 23 | R | 9 | 32 | 32·26 | 3 | 2 | 40 | 30·6 | ... |
| 337 | ... ... ... | Feb. 26 | R | 9 | 32 | 51·36 | 3 | 129 | 47 | 14·2 | 8·2 |
| 338 | 14 Leonis *o* ... ... | Jan. 7 | M | 9 | 33 | 50·38 | ... | 79 | 29 | 9·7 | ... |
| | ... ... ... | Feb. 3 | R | | 33 | 50·19 | 5 | | 29 | 10·7 | ... |
| | ... ... ... | Mar. 30 | R | | 33 | 50·34 | ... | | 29 | 10·5 | ... |
| | ... ... ... | " 31 | R | | 33 | 50·00 | ... | | 29 | 10·4 | ... |
| 339 | ... ... ... | Feb. 24 | R | 9 | 34 | 41·36 | ... | 130 | 34 | 22·9 | ... |
| 340 | 4280 Taylor ... ... | Mar 5 | M | 9 | 34 | 42·40 | ... | 142 | 19 | 28·7 | 8·0 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number | Star | Date of Observation. | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | | ° | ′ | ″ | |
| 341 | 17 Leonis ε ... ... | Feb. 5 | M | 9 | 38 | 4·10 | ... | 65 | 35 | 49·4 | ... |
| | ... ... ... | " 6 | M | | 38 | 4·31 | ... | | 35 | 49·0 | ... |
| | ... ... ... | Mar. 20 | R | | 38 | 4·08 | ... | | 35 | 49·5 | ... |
| | ... ... ... | " 23 | R | | 38 | 4·10 | 5 | | 35 | 49·9 | ... |
| | ... ... ... | " 24 | R | | 38 | 4·10 | ... | | 35 | 49·0 | ... |
| | ... ... ... | " 26 | R | | 38 | 4·13 | ... | | 35 | 49·4 | ... |
| | ... ... ... | " 27 | R | | 38 | 4·16 | ... | | 35 | 48·0 | ... |
| | ... ... ... | " 28 | R | | 38 | 4·08 | ... | | 35 | 49·6 | ... |
| | ... ... ... | Apl. 1 | R | | 38 | 4·16 | ... | | 35 | 49·0 | ... |
| | ... ... ... | " 9 | M | | 38 | 4·21 | ... | | 35 | 49·4 | ... |
| | ... ... ... | " 10 | M | | 38 | 4·22 | ... | | 35 | 47·9 | ... |
| | ... ... ... | " 11 | M | | 38 | 4·23 | ... | | 35 | 45·7 | ... |
| 342 | R Leonis Var. 1 ... | Feb. 26 | R | 9 | 40 | 11·25 | 5 | 77 | 56 | 16·5 | 9·0 |
| | ... ... ... | Mar. 11 | M | | 40 | 11·14 | 6 | | 56 | 15·8 | 9·2 |
| | ... ... ... | " 17 | M | | 40 | 10·85 | ... | | 56 | 16·5 | 8·9 |
| | ... ... ... | " 25 | R | | 40 | 11·20 | ... | | 56 | 16·2 | 7·9 |
| | ... ... ... | " 30 | R | | 40 | 11·25 | ... | | 56 | 16·3 | 8·2 |
| 343 | ... ... ... | Feb. 24 | R | 9 | 42 | 39·64 | 5 | 130 | 47 | 31·0 | 8·0 |
| 344 | ... ... ... | Mar. 2 | M | 9 | 43 | 32·16 | ... | 143 | 45 | 37·4 | 8·9 |
| 345 | ... ... ... | Mar. 12 | M | 9 | 44 | 3·77 | ... | 147 | 1 | 19·8 | 8·0 |
| 346 | ... ... ... | Mar. 27 | R | 9 | 45 | 53·44 | ... | 129 | 2 | 34·2 | 9·3 |
| 347 | 70 R. P. L. ... ... | Feb. 2 | S | 9 | 46 | 6·81 | 3 | 5 | 25 | 33·2 | ... |
| | ... ... ... | Mar. 3 | M | | 46 | 6·85 | 3 | | 25 | 33·2 | ... |
| | ... ... ... | Apl. 8 | M | | 46 | 7·23 | 5 | | 25 | 31·1 | ... |
| | ... ... ... | " 10 | M | | 46 | 7·71 | 3 | | 25 | 30·8 | ... |
| | ... ... ... | " 13 | M | | 46 | 7·56 | 3 | | 25 | 30·6 | ... |
| | ... ... ... | " 15 | M | | 46 | 8·14 | 3 | | 25 | 32·9 | ... |
| 348 | 4402 Taylor ... ... | Feb. 26 | R | 9 | 49 | 50·91 | 5 | 129 | 47 | 12·3 | 7·0 |
| | ... ... ... | Mar. 24 | R | | 49 | 50·87 | ... | | 47 | 12·6 | 7·7 |
| 349 | 29 Leonis π ... ... | Jan. 7 | M | 9 | 52 | 58·26 | ... | 81 | 18 | 1·0 | ... |
| | ... ... ... | Mar. 3 | M | | 52 | 58·33 | 4 | | 18 | 0·8 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 349 | 29 Leonis π ... ... | Mar. | 4 | M | 9 | 52 | 58·33 | ... | 81 | 18 | 0·3 | ... |
| | ... ... ... | ,, | 24 | R | | 52 | 58·33 | ... | | 18 | 0·0 | ... |
| | ... ... ... | ,, | 27 | R | | 52 | 58·29 | ... | | 17 | 59·9 | ... |
| | ... ... ... | ,, | 30 | R | | 52 | 58·34 | ... | | 18 | 0·1 | ... |
| | ... ... ... | Apl. | 1 | R | | 52 | 58·35 | 6 | | 18 | 0·5 | ... |
| | ... ... ... | ,, | 9 | M | | 52 | 58·23 | ... | | 17 | 59·8 | ... |
| | ... ... ... | ,, | 11 | M | | 52 | 58·23 | ... | | 18 | 0·1 | ... |
| | ... ... ... | ,, | 13 | M | | 52 | 58·27 | ... | | 18 | 0·5 | ... |
| | ... ... ... | ,, | 14 | M | | 52 | 58·30 | ... | | 18 | 1·1 | ... |
| | ... ... ... | ,, | 27 | M | | 52 | 58·31 | ... | | 17 | 59·4 | ... |
| | ... ... ... | ,, | 28 | M | | 52 | 58·20 | ... | | 17 | 59·7 | ... |
| 350 | ... ... ... | Mar. | 12 | M | 9 | 55 | 40·87 | ... | 147 | 23 | 57·7 | 8·0 |
| 351 | ... ... ... | Mar. | 14 | M | 9 | 56 | 24·14 | ... | 144 | 3 | 33·7 | 8·0 |
| 352 | 4476 Taylor ... ... | Mar. | 5 | M | 9 | 57 | 48·75 | ... | 145 | 35 | 45·6 | 8·9 |
| 353 | 31 Leonis A ... ... | Mar. | 3 | M | 10 | 0 | 37·80 | ... | 79 | 19 | 58·3 | ... |
| | ... ... ... | ,, | 4 | M | | 0 | 37·84 | ... | | 19 | 57·9 | ... |
| 354 | 32 Leonis α ... ... | Feb. | 2 | S | 10 | 1 | 4·38 | ... | 77 | 21 | 54·1 | ... |
| | ... ... ... | ,, | 6 | M | | 1 | 4·24 | ... | | 21 | 52·4 | ... |
| | ... ... ... | Mar. | 7 | M | | 1 | 4·30 | ... | | 21 | 52·0 | ... |
| | ... ... ... | ,, | 13 | M | | 1 | 4·20 | ... | | 21 | 53·5 | ... |
| | ... ... ... | ,, | 24 | R | | 1 | 4·39 | ... | | 21 | 53·0 | ... |
| | ... ... ... | ,, | 25 | R | | 1 | 4·30 | ... | | 21 | 53·5 | ... |
| | ... ... ... | ,, | 26 | R | | 1 | 4·38 | ... | | 21 | 54·2 | ... |
| | ... ... ... | ,, | 27 | R | | 1 | 4·39 | ... | | 21 | 55·2 | ... |
| | ... ... ... | ,, | 28 | R | | 1 | 4·38 | 5 | | 21 | 54·0 | ... |
| | ... ... ... | ,, | 31 | R | | 1 | 4·36 | ... | | 21 | 54·8 | ... |
| | ... ... ... | Apl. | 8 | M | | 1 | 4·35 | ... | | 21 | 51·7 | ... |
| | ... ... ... | ,, | 9 | M | | 1 | 4·32 | ... | | 21 | 53·4 | ... |
| | ... ... ... | ,, | 10 | M | | 1 | 4·41 | ... | | 21 | 51·5 | ... |
| | ... ... ... | ,, | 11 | M | | 1 | 4·32 | ... | | 21 | 52·7 | ... |
| | ... ... ... | ,, | 13 | M | | 1 | 4·44 | ... | | 21 | 53·2 | ... |
| | ... ... ... | ,, | 14 | M | | 1 | 4·38 | ... | | 21 | 53·6 | ... |
| | ... ... ... | ,, | 15 | M | | 1 | 4·34 | ... | | 21 | 54·1 | ... |
| | ... ... ... | ,, | 27 | M | | 1 | 4·23 | ... | | 21 | 51·7 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number | Star | Date of Observation | | Observer. | Mean Right Ascension 1863. | | | No. of Wires. | Mean Polar Distance 1863. | | | Magnitude |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 354 | 33 Leonis a ... ... | Apl. | 28 | M | 10 | 1 | 4·24 | ... | 77 | 21 | 54·1 | .. |
| | ... ... ... | " | 29 | M | | 1 | 4·36 | ... | | 21 | 51·3 | ... |
| 355 | 4538 Taylor ... .. | Mar. | 26 | R | 10 | 6 | 6·78 | ... | 129 | 19 | 7·2 | ... |
| 356 | .. ... ... | Mar. | 17 | M | 13 | 8 | 50·19 | ... | 139 | 51 | 23·4 | 9·0 |
| 357 | 72 R. P. L. .. .. | Mar. | 12 | M | 10 | 9 | 10·65 | 3 | 5 | 3 | 21·8 | ... |
| | ... ... .. | Apl. | 30 | M | | 9 | 10·87 | 3 | | 3 | 19·8 | ... |
| | ... ... sp. | Aug. | 18 | R | | 9 | 10·97 | 3 | | 3 | 19·5 | ... |
| | ... ... sp. | Nov. | 2 | M | | 9 | 10·67 | 3 | | 3 | 19·6 | ... |
| 358 | 4577 Taylor ... | Mar. | 27 | R | 10 | 9 | 45·10 | ... | 128 | 36 | 38·7 | 9·0 |
| | ... ... | " | 31 | R | | 9 | 45·08 | ... | | 36 | 39·3 | ... |
| 359 | 41 Leonis γ¹ ... | Feb. | 2 | S | 10 | 12 | 24·91 | ... | 69 | 28 | 3·1 | ... |
| | ... ... | Mar. | 3 | M | | 12 | 24·74 | | | 28 | 3·7 | ... |
| | ... ... ... | " | 7 | M | | 12 | 24·80 | ... | | 28 | 1·0 | ... |
| | ... ... ... | " | 26 | R | | 12 | 24·92 | ... | | 28 | 1·6 | ... |
| | .. ... ... | " | 30 | R | | 12 | 24·84 | ... | | 28 | 1·3 | ... |
| | ... ... | Apl. | 1 | R | | 12 | 24·86 | ... | | 28 | 2·2 | ... |
| | ... ... .. | " | 8 | M | | 12 | 24·85 | ... | | 28 | 0·2 | ... |
| | .. ... ... | " | 9 | M | | 12 | 24·93 | ... | | 28 | 1·4 | ... |
| | ... ... .. | " | 10 | M | | 12 | 24·82 | ... | | 28 | 1·4 | ... |
| | ... ... .. | " | 11 | M | | 12 | 24·91 | ... | | 28 | 1·4 | ... |
| | .. ... .. | " | 13 | M | | 12 | 24·79 | ... | | 28 | 1·5 | ... |
| | ... ... .. | " | 14 | M | | 12 | 24·84 | ... | | 28 | 2·3 | ... |
| | ... ... ... | " | 15 | M | | 12 | 24·87 | ... | | 28 | 0·3 | ... |
| | ... ... ... | " | 29 | M | | 12 | 24·87 | ... | | 27 | 59·5 | ... |
| 360 | ... ... ... | Mar. | 5 | M | 10 | 14 | 26·11 | ... | 150 | 25 | 19·3 | 9·0 |
| 361 | 43 Leonis ... ... | Feb. | 4 | R | 10 | 15 | 50·14 | ... | 82 | 45 | 46·1 | ... |
| | ... ... ... | " | 5 | M | | 15 | 49·94 | .. | | 45 | 47·0 | ... |
| 362 | ... ... ... | Mar. | 27 | R | 10 | 16 | 9·40 | 6 | 129 | 15 | 55·9 | 9·0 |
| 363 | 44 Leonis ... ... | Apl. | 1 | R | 10 | 18 | 1·87 | 6 | 80 | 31 | 13·6 | ... |
| 364 | ... | Mar. | 12 | M | 10 | 18 | 43·26 | ... | 146 | 8 | 10·2 | 9·7 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 365 | ... ... ... | Mar. | 3 | M | 10 | 21 | 50·24 | ... | 146 | 54 | 34·8 | 8·9 |
| 366 | 47 Leonis ρ ... ... | Feb. | 4 | R | 10 | 25 | 35·64 | .. | 79 | 59 | 22·7 | .. |
| | ... ... ... | ,, | 5 | M | | 25 | 35·49 | .. | | 59 | 25·0 | ... |
| | ... ... ... | Mar. | 2 | M | | 25 | 35·77 | ... | | 59 | 23·3 | ... |
| | ... ... ... | ,, | 30 | R | | 25 | 35·71 | ... | | 59 | 23·3 | ... |
| | ... ... ... | ,, | 31 | R | | 25 | 35·60 | ... | | 59 | 22·7 | ... |
| | ... .. ... | Apl. | 1 | P | | 25 | 35·81 | .. | | 59 | 24·2 | ... |
| | . ... ... | ,, | 8 | M | | 25 | 35·68 | ... | | 59 | 23·1 | ... |
| | ... ... .. | ,, | 10 | M | | 25 | 35·67 | ... | | 59 | 20·5 | ... |
| | ... ... ... | ,, | 13 | M | | 25 | 35·75 | ... | | 59 | 23·1 | ... |
| | ... ... ... | ,, | 15 | M | | 25 | 35·67 | .. | | 59 | 22·5 | ... |
| | ... ... ... | ,, | 18 | R | | 25 | 35·60 | ... | | 59 | 22·3 | .. |
| | ... ... ... | May. | 1 | M | | 25 | 35·61 | ... | | 59 | 20·7 | ... |
| 367 | ... ... ... | Mar. | 12 | M | 10 | 29 | 10·39 | ... | 147 | 53 | 17·9 | 9·5 |
| 368 | 4769 Taylor ... ... | Mar. | 3 | M | 10 | 30 | 20·20 | 3 | 146 | 50 | 58·0 | 6·0 |
| 369 | R Ursæ Majoris Var. 1. | Mar. | 13 | M | 10 | 34 | 53·94 | ... | 20 | 30 | 25·3 | 6·7 |
| | ... ... .. | ,, | 17 | M | | 34 | 54·27 | 5 | | 30 | 27·0 | 6·7 |
| | ... ... ... | ,, | 18 | M | | 34 | 53·71 | 3 | | 30 | 26·9 | 6·9 |
| | ... ... ... | ,, | 19 | M | | 34 | 54·32 | ... | | 30 | 25·4 | 6·8 |
| | ... .. ... | Apl. | 17 | R | | 34 | 53·83 | 3 | | 30 | 22·0 | 8·0 |
| 370 | ... ... ... | Feb. | 2 | S | 10 | 35 | 19·32 | 5 | 137 | 19 | 15·0 | 9·5 |
| 371 | ... .. ... | Mar. | 9 | M | 10 | 38 | 44·67 | ... | 144 | 50 | 1·4 | 8·0 |
| 372 | ... ... | Mar. | 12 | M | 10 | 41 | 22·73 | .. | 146 | 22 | 52·8 | 9·0 |
| 373 | 53 Leonis l .. ... | Mar. | 2 | M | 10 | 42 | 3·14 | . | 78 | 43 | 52·2 | ... |
| | ... ... ... | ,, | 31 | R | | 42 | 3·24 | .. | | 43 | 51·0 | ... |
| | . . ... | Apl. | 8 | M | | 42 | 3·29 | ... | | 43 | 51·3 | .. |
| | .. ... ... | ,, | 16 | R | | 42 | 3·23 | ... | | 43 | 50·8 | ... |
| | ... ... .. | ,, | 17 | R | | 42 | 3·22 | 5 | | 43 | 51·4 | ... |
| | .. ... .. | ,, | 18 | R | | 42 | 3·17 | ... | | 43 | 50·4 | .. |
| | ... .. .. | ,, | 28 | M | | 42 | 3·17 | ... | | 43 | 53·0 | ... |
| | ... ... .. | ,, | 29 | M | | 42 | 3·27 | 3 | | 43 | 50·7 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 373 | 53 Leonis l .. .. | May | 1 | M | 10 | 42 | 3·09 | ... | 78 | 43 | 49·4 | .. |
| | ... ... ... | ,, | 6 | M | | 42 | 3·24 | ... | | 43 | 50·7 | .. |
| | .. .. ... | ,, | 7 | M | | 42 | 3·20 | ... | | 43 | 51·2 | .. |
| 374 | ... .. ... | Mar. | 6 | M | 10 | 42 | 34·28 | ... | 141 | 4 | 7·1 | 9·0 |
| 375 | ... .. ... | Mar. | 11 | M | 10 | 43 | 50·46 | ... | 137 | 2 | 29·7 | 8·9 |
| 376 | ... .. .. | Apl. | 15 | M | 10 | 46 | 0·31 | ... | 141 | 39 | 32·0 | 7·8 |
| 377 | ... ... .. | Mar. | 5 | M | 10 | 47 | 50·58 | ... | 150 | 5 | 12·9 | 9·0 |
| 378 | .. ... ... | Mar. | 18 | M | 10 | 47 | 56·36 | ... | 129 | 28 | 53·1 | 9·0 |
| 379 | 4945 Taylor .. ... | Mar. | 9 | M | 10 | 48 | 53·30 | ... | 144 | 53 | 22·0 | 7·0 |
| 380 | ... ... ... | Mar. | 14 | M | 10 | 50 | 13·60 | ... | 144 | 30 | 10·9 | 8·0 |
| 381 | 4965 Taylor .. ... | Mar. | 12 | M | 10 | 50 | 38·19 | 5 | 147 | 19 | 17·2 | 7·0 |
| 382 | 4969 Taylor .. .. | Feb. | 6 | M | 10 | 52 | 16·76 | 5 | 143 | 35 | 55·0 | 9·0 |
| 383 | ... .. ... | Mar. | 11 | M | 10 | 52 | 50·29 | .. | 139 | 32 | 28·7 | 8·9 |
| 384 | 59 Leonis c ... .. | Mar. | 4 | M | 10 | 53 | 38·48 | ... | 83 | 9 | 47·6 | .. |
| | ... ... .. | ,, | 5 | M | | 53 | 38·64 | .. | | 9 | 49·9 | ... |
| 385 | 61 Leonis p' .. .. | Apl. | 28 | M | 10 | 54 | 50·08 | .. | 91 | 44 | 52·7 | .. |
| | .. .. ... | ,, | 29 | M | | 54 | 50·28 | .. | | 44 | 51·7 | 5·5 |
| 386 | ... ... ... | Mar. | 9 | M | 10 | 56 | 58·40 | .. | 145 | 25 | 22·4 | 9·0 |
| 387 | 4376 Lacaille .. | Mar. | 23 | R | 10 | 57 | 46·14 | 5 | 120 | 31 | 13·0 | 8·2 |
| 388 | 63 Leonis χ .. ... | Mar | 7 | M | 10 | 57 | 56·96 | .. | 81 | 55 | 26·6 | .. |
| | ... ... ... | Apl. | 1 | P | | 57 | 57·06 | 6 | | 55 | 26·2 | .. |
| | ... ... .. | ,, | 17 | R | | 57 | 56·84 | .. | | 55 | 26·8 | .. |
| | ... ... .. | ,, | 18 | R | | 57 | 56·94 | 4 | | 55 | 26·8 | .. |
| | ... ... ... | ,, | 23 | R | | 57 | 56·86 | .. | | 55 | 27·0 | .. |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 388 | 63 Leonis χ .. .. | May | 2 | M | 10 | 57 | 56·85 | ... | 81 | 55 | 26·7 | ... |
| | ... ... ... | „ | 9 | M | | 57 | 56·84 | ... | | 55 | 24·6 | ... |
| | . ... ... | „ | 12 | M | | 57 | 56·88 | ... | | 55 | 27·1 | ... |
| 389 | ... ... .. | Mar. | 6 | M | 10 | 58 | 9·40 | 5 | 140 | 58 | 54·6 | 9·5 |
| 390 | 65 Leonis $p^2$ .. ... | Mar. | 4 | M | 10 | 59 | 55·01 | ... | 87 | 18 | 6·0 | ... |
| 391 | ... ... | Mar. | 12 | M | 11 | 0 | 34·00 | ... | 147 | 13 | 24·8 | 9·5 |
| 392 | 5092 Taylor .. ... | Apl. | 11 | M | 11 | 5 | 16·22 | ... | 143 | 48 | 48·3 | 8·7 |
| 393 | 68 Leonis δ ... ... | Mar. | 2 | M | 11 | 6 | 49·06 | ... | 68 | 43 | 35·5 | |
| | ... ... .. | Apl. | 16 | R | | 6 | 49·02 | ... | | 43 | 35·5 | ... |
| | .. ... ... | „ | 23 | R | | 6 | 48·99 | ... | | 43 | 35·6 | .. |
| | ... ... .. | „ | 27 | M | | 6 | 49·12 | ... | | 43 | 35·2 | ... |
| | .. ... ... | „ | 30 | M | | 6 | 49·11 | ... | | 43 | 34·7 | ... |
| | ... ... ... | May. | 1 | M | | 6 | 48·96 | ... | | 43 | 33·9 | .. |
| | ... ... ... | „ | 2 | M | | 6 | 48·98 | ... | | 43 | 34·4 | ... |
| | .. ... ... | „ | 6 | M | | 6 | 49·02 | ... | | 43 | 33·8 | ... |
| | ... ... ... | „ | 7 | M | | 6 | 49·07 | ... | | 43 | 35·0 | ... |
| | .. ... ... | „ | 12 | M | | 6 | 49·05 | ... | | 43 | 34·3 | ... |
| | ... ... ... | „ | 15 | M | | 6 | 49·07 | ... | | 43 | 34·8 | ... |
| 394 | .. ... ... | Apl. | 9 | M | 11 | 7 | 4·51 | 3 | 145 | 39 | 55·0 | 8·8 |
| 395 | ... .. ... | Mar. | 11 | M | 11 | 8 | 31·38 | ... | 150 | 50 | 30·5 | 7·9 |
| | ... .. .. | „ | 23 | R | | 8 | 31·28 | 5 | | 50 | 32·6 | 8·5 |
| 396 | ... .. ... | Mar. | 9 | M | 11 | 9 | 26·23 | ... | 145 | 54 | 54·6 | 10·0 |
| 397 | ... .. ... | Mar. | 12 | M | 11 | 9 | 36·60 | ... | 147 | 10 | 54·2 | 9·0 |
| 398 | 74 Leonis φ .. ... | Feb. | 5 | M | 11 | 9 | 41·54 | ... | 92 | 54 | 13·0 | ... |
| | .. ... .. | „ | 6 | M | | 9 | 41·80 | ... | | 54 | 11·6 | ... |
| | ... .. ... | Apl. | 1 | P | | 9 | 41·93 | ... | | 54 | 13·1 | ... |
| | ... ... ... | „ | 28 | M | | 9 | 41·66 | ... | | 54 | 11·9 | ... |
| 399 | ... ... .. | Mar. | 6 | M | 11 | 10 | 29·26 | ... | 141 | 8 | 15·3 | 10·0 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation | | Observer | Mean Right Ascension. 1863. | | | No. of Wires | Mean Polar Distance 1863 | | | Magnitude |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 400 | ... ... ... | Mar | 20 | R | 11 | 11 | 5·42 | 5 | 127 | 38 | 2·2 | ... |
| 401 | 12 Crateris δ ... ... | Apl. | 17 | R | 11 | 12 | 29·61 | ... | 104 | 2 | 15·7 | ... |
| | ... ... ... | ,, | 18 | R | | 12 | 29·61 | ... | | 2 | 14·8 | ... |
| | ... ... ... | ,, | 23 | R | | 12 | 29·59 | 5 | | 2 | 15·3 | ... |
| | ... ... ... | ,, | 27 | M | | 12 | 29·64 | ... | | 2 | 15·1 | ... |
| | ... ... ... | ,, | 30 | M | | 12 | 29·53 | ... | | 2 | 14·9 | ... |
| | ... ... ... | May | 1 | M | | 12 | 29·59 | ... | | 2 | 14·3 | ... |
| | ... ... ... | ,, | 2 | M | | 12 | 29·44 | ... | | 2 | 14·8 | ... |
| | ... ... ... | ,, | 4 | M | | 12 | 29·55 | ... | | 2 | 14·8 | ... |
| | ... ... ... | ,, | 6 | M | | 12 | 29·63 | ... | | 2 | 14·3 | ... |
| | ... ... ... | ,, | 7 | M | | 12 | 29·71 | ... | | 2 | 15·0 | ... |
| | ... ... ... | ,, | 8 | M | | 12 | 29·57 | ... | | 2 | 16·0 | ... |
| | ... ... ... | ,, | 9 | M | | 12 | 29·63 | ... | | 2 | 14·9 | ... |
| | ... ... ... | ,, | 15 | M | | 12 | 29·50 | ... | | 2 | 14·8 | ... |
| 402 | ... ... ... | Mar. | 26 | R | 11 | 12 | 45·72 | ... | 129 | 31 | 48·6 | 7·8 |
| 403 | ... ... ... | Mar. | 23 | R | 11 | 19 | 22·05 | ... | 129 | 30 | 37·6 | 8·1 |
| | ... ... ... | ,, | 26 | R | | 19 | 22·17 | ... | | 30 | 37·3 | 8·2 |
| 404 | ... ... ... | Apl. | 16 | R | 11 | 21 | 30·16 | 5 | 128 | 22 | 27·3 | 9·5 |
| 405 | ... ... ... | Mar | 9 | M | 11 | 22 | 45·50 | ... | 145 | 53 | 23·6 | 9·0 |
| 406 | ... ... ... | Apl. | 13 | M | 11 | 23 | 8·90 | ... | 142 | 52 | 15·8 | 9·2 |
| 407 | 87 Leonis e ... ... | Feb. | 5 | M | 11 | 23 | 18·73 | ... | 92 | 14 | 53·9 | ... |
| | ... ... ... | Mar. | 5 | M | | 23 | 18·87 | ... | | 14 | 54·2 | ... |
| | ... ... ... | ,, | 6 | M | | 23 | 18·84 | ... | | 14 | 53·7 | ... |
| 408 | ... ... ... | Mar | 13 | M | 11 | 23 | 18·88 | ... | 23 | 20 | 51·6 | 10·0 |
| | ... ... ... | ,, | 18 | M | | 23 | 18·80 | 5 | | 20 | 53·0 | 10·0 |
| | ... ... ... | Apl. | 17 | R | | 23 | 18·79 | 6 | | 20 | 51·5 | 9·4 |
| 409 | ... ... ... | Mar. | 23 | R | 11 | [illegible] | 36·12 | 5 | 23 | 17 | 15·0 | 9·9 |
| | ... ... ... | ,, | 25 | R | | 26 | 36·13 | ... | | 17 | 18·0 | [illegible] |
| 410 | ... ... ... | Mar | 2 | M | 11 | [illegible] | 47·26 | ... | 140 | 15 | 22·2 | [illegible] |

## *Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires | Mean Polar Distance. 1863. | | | Magnitude |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 411 | 91 Leonis υ ... ... | Mar. | 5 | M | 11 | 29 | 56·07 | ... | 90 | 4 | 4·9 | .. |
| | ... ... ... | ,, | 6 | M | | 29 | 56·22 | ... | | 4 | 4·6 | .. |
| | ... ... ... | Apl. | 1 | P | | 29 | 56·23 | .. | | 4 | 4·8 | .. |
| | ... .. ... | ,, | 16 | R | | 29 | 56·08 | ... | | 4 | 4·5 | .. |
| | ... ... ... | ,, | 29 | M | | 29 | 56·04 | ... | | 4 | 2·9 | .. |
| | ... ... ... | ,, | 30 | M | | 29 | 56·01 | ... | | 4 | 3·9 | ... |
| | ... ... ... | May | 4 | M | | 29 | 56·01 | .. | | 4 | 2·7 | .. |
| | ... ... ... | ,, | 6 | M | | 29 | 56·03 | ... | | 4 | 3·3 | .. |
| | ... ... ... | ,, | 7 | M | | 29 | 55·94 | ... | | 4 | 4·6 | ... |
| | ... ... ... | ,, | 8 | M | | 29 | 56·03 | ... | | 4 | 5·5 | .. |
| | ... ... ... | ,, | 9 | M | | 29 | 56·11 | ... | | 4 | 2·8 | .. |
| | ... ... ... | ,, | 11 | M | | 29 | 56·07 | ... | | 4 | 4·0 | ... |
| | ... ... ... | ,, | 12 | M | | 29 | 56·06 | .. | | 4 | 5·1 | .. |
| 412 | ... ... ... | Mar. | 14 | M | 11 | 32 | 6·37 | 5 | 144 | 14 | 11·0 | 8·0 |
| 413 | .. ... ... | Mar. | 30 | R | 11 | 33 | 54·38 | 5 | 127 | 48 | 55·5 | 8·4 |
| 414 | ... ... ... | Apl. | 11 | M | 11 | 34 | 17·41 | ... | 144 | 20 | 21·7 | 7·9 |
| 415 | ... .. ... | Mar. | 13 | M | 11 | 36 | 0·31 | ... | 139 | 39 | 56·1 | 7·9 |
| 416 | 5384 Taylor ... ... | Feb. | 5 | M | 11 | 36 | 59·90 | 5 | 151 | 43 | 47·3 | 6·0 |
| 417 | ... .. ... | Apl. | 9 | M | 11 | 38 | 6·44 | 5 | 149 | 38 | 28·8 | 9·3 |
| 418 | ... . ... | Mar. | 26 | R | 11 | 38 | 39·13 | 5 | 129 | 33 | 41·2 | 9·2 |
| | .. ... ... | Apl | 17 | R | | 38 | 39·00 | .. | | 33 | 42·9 | 9·1 |
| 419 | ... . ... | Mar. | 28 | R | 11 | 41 | 5·95 | 5 | 126 | 30 | 4·9 | 9·2 |
| 420 | .. ... .. | Mar. | 24 | R | 11 | 41 | 0·27 | .. | 129 | 31 | 45·2 | 8·3 |
| | ... . . | ,, | 25 | R | | 41 | 0·29 | .. | | 31 | 44·4 | 8·3 |
| 421 | 94 Leonis β ... | Apl. | 23 | R | 11 | 42 | 4·21 | 5 | 74 | 39 | 45·4 | ... |
| | ... ... ... | May | 4 | M | | 42 | 4·12 | ... | | 39 | 46·6 | ... |
| | . ... ... | ,, | 9 | M | | 42 | 4·19 | 5 | | 39 | 43·8 | .. |
| | ... ... .. | ,, | 11 | M | | 42 | 4·09 | ... | | 39 | 45·4 | .. |
| | .. .. ... | ,, | 12 | M | | 42 | 4·21 | ... | | 39 | 45·0 | ... |
| | ... ... ... | ,, | 15 | M | | 42 | 4·19 | ... | | 39 | 43·6 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number | Star | Date of Observation | Observer | Mean Right Ascension 1863. | | | No. of Wires | Mean Polar Distance 1863. | | | Magnitude |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h | m | s | | ° | ′ | ″ | |
| 422 | ... ... ... | Apl. 10 | M | 11 | 43 | 5·22 | .. | 143 | 44 | 54·7 | 9·3 |
| 423 | 5427 Taylor ... ... | Feb. 6 | M | 11 | 44 | 2·10 | ... | 94 | 34 | 18·4 | 6·0 |
| | ... ... ... | Apl. 29 | M | | 44 | 2·07 | ... | | 34 | 17·5 | 6·0 |
| | ... ... ... | „ 30 | M | | 44 | 1·01 | ... | | 34 | 18·5 | 6·0 |
| 424 | ... ... ... | Mar. 30 | R | 11 | 44 | 41·15 | ... | 120 | 2 | 19·6 | 8·2 |
| 425 | 5433 Taylor ... ... | Mar. 23 | R | 11 | 44 | 48·42 | ... | 120 | 32 | 41·1 | 7·7 |
| | ... ... ... | „ 27 | R | | 44 | 48·39 | ... | | 32 | 40·5 | 7·8 |
| 426 | ... ... | Apl. 13 | M | 11 | 45 | 48·58 | ... | 142 | 30 | 41·1 | 9·4 |
| 427 | ... ... | Mar. 28 | R | 11 | 49 | 53·93 | 5 | 128 | 5 | 8·2 | .. |
| 428 | ... ... ... | Mar. 30 | R | 11 | 51 | 20·73 | 5 | 128 | 52 | 12·9 | 8·7 |
| 429 | ... ... ... | Apl. 14 | M | 11 | 51 | 33·69 | .. | 144 | 12 | 35·9 | 9·0 |
| 430 | ... ... ... | Mar. 23 | R | 11 | 53 | 47·10 | 5 | 129 | 35 | 29·0 | 9·7 |
| | ... ... ... | „ 27 | R | | 53 | 47·13 | 5 | | 35 | 29·0 | 9·7 |
| 431 | ... ... ... | May 16 | R | 11 | 56 | 20·43 | 5 | 128 | 29 | 27·2 | 9·0 |
| 432 | 5534 Taylor ... ... | Apl. 10 | M | 11 | 56 | 46·47 | ... | 143 | 56 | 59·0 | 8·0 |
| 433 | [illegible] Lacaille ... ... | Apl. 15 | M | 11 | 56 | 51·02 | .. | 142 | 44 | 6·0 | 7·3 |
| 434 | 89 R P L. ... | Mar. 20 | R | 11 | 57 | 48·27 | 3 | 3 | 30 | 13·0 | ... |
| | ... ... ... | „ 24 | R | | 57 | 48·23 | 3 | | 30 | 15·3 | ... |
| | ... ... ... | „ [illegible] | R | | 57 | 48·06 | 3 | | 30 | 14·7 | ... |
| | ... ... ... | „ 28 | R | | 57 | 48·16 | 3 | | 30 | 15·0 | ... |
| | ... ... ... | „ 31 | M | | 57 | 47·95 | 3 | | 30 | 15·0 | ... |
| | ... ... ... | Apl. 23 | R | | 57 | 48·20 | 3 | | 30 | 13·0 | ... |
| | ... ... ... | May 3 | M | | 57 | 48·24 | 3 | | 30 | 12·0 | ... |
| | ... ... ... | Oct. 31 | R | | 57 | 48·26 | 3 | | 30 | 11·3 | ... |
| | ... ... ... | Nov. 4 | M | | 57 | 48·15 | 5 | | 30 | 12·0 | ... |
| | ... ... ... | „ 14 | M | | 57 | 47·56 | 3 | | 30 | 10·0 | ... |
| 435 | | Mar. 20 | R | 11 | 58 | 58·33 | | 128 | 27 | [illegible] | 8·0 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 436 | ... ... ... | Apl. | 14 | M | 11 | 59 | 41·35 | ... | 144 | 15 | 51·2 | 8·0 |
| 437 | ... ... .. | Mar. | 27 | R | 12 | 1 | 33·96 | 5 | 130 | 1 | 14·1 | 9·0 |
| 438 | 5041 Lacaille ... | Apl. | 9 | M | 12 | 2 | 29·66 | ... | 141 | 22 | 52·4 | 8·2 |
| 439 | ... ... ... | Feb. | 6 | M | 12 | 2 | 34·21 | 3 | 141 | 5 | 17·7 | 9·5 |
| 440 | 2 Corvi ε .. ... | Apl. | 16 | R | 12 | 3 | 5·01 | ... | 111 | 51 | 26·7 | ... |
| | ... ... ... | May | 8 | M | | 3 | 4·95 | .. | | 51 | 28·5 | ... |
| | ... ... ... | „ | 9 | M | | 3 | 4·95 | ... | | 51 | 28·1 | .. |
| | ... ... ... | „ | 11 | M | | 3 | 4·92 | .. | | 51 | 29·1 | .. |
| | ... ... ... | „ | 16 | R | | 3 | 4·96 | 5 | | 51 | 27·6 | .. |
| 441 | ... ... ... | Apl. | 11 | M | 12 | 3 | 35·27 | ... | 145 | 56 | 44·2 | 9·0 |
| 442 | ... ... ... | Apl. | 28 | M | 12 | 5 | 44·87 | 5 | 134 | 7 | 45·7 | 8·0 |
| 443 | ... ... ... | Mar. | 25 | R | 12 | 5 | 59·86 | 5 | 130 | 10 | 45·5 | 9·5 |
| 444 | ... ... ... | Apl. | 13 | M | 12 | 6 | 9·37 | ... | 138 | 27 | 11·7 | 8·0 |
| 445 | ... ... ... | Apl. | 15 | M | 12 | 6 | 26·01 | 5 | 142 | 50 | 19·4 | 9·4 |
| 446 | 5613 Taylor .. ... | Mar. | 31 | R | 12 | 7 | 52·61 | ... | 130 | 22 | 28·7 | 7·2 |
| 447 | 69 Ursæ Majoris δ ... | Mar. | 27 | R | 12 | 8 | 37·87 | ... | 32 | 12 | 23·3 | .. |
| | ... ... .. | „ | 30 | R | | 8 | 37·84 | ... | | 12 | 21·5 | .. |
| | ... ... ... | Apl. | 10 | M | | 8 | 38·04 | ... | | 12 | 21·6 | ... |
| 448 | ... ... ... | Apl. | 14 | M | 12 | 8 | 46·95 | ... | 144 | 19 | 53·0 | 8·0 |
| 449 | 15 Virginis η .. | Apl. | 30 | M | 12 | 12 | 53·87 | ... | 89 | 54 | 19·1 | ... |
| | ... ... ... | May | 15 | M | | 12 | 53·78 | .. | | 54 | 19·3 | .. |
| | ... .. .. | „ | 16 | R | | 12 | 53·85 | ... | | 54 | 19·0 | ... |
| | ... .. ... | „ | 18 | R | | 12 | 53·79 | ... | | 54 | 19·6 | ... |
| 450 | ... ... ... | Apl. | 9 | M | 12 | 14 | 0·35 | ... | 143 | 44 | 28·3 | 9·6 |
| 451 | 5119 Lacaille ... | Mar. | 6 | M | 12 | 15 | 18·51 | 5 | 138 | 33 | 54·9 | 9·0 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number | Star. | | | Date of Observation. | | Observer. | Mean Right Ascension 1863. | | | No. of Wires. | Mean Polar Distance 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 452 | … | … | … | Apl. | 8 | M | 12 | 15 | 48·74 | … | 141 | 30 | 37·5 | 8·5 |
| 453 | … | … | … | Apl. | 11 | M | 12 | 16 | 42·61 | … | 147 | 9 | 26·1 | 8·9 |
| 454 | … | … | … | Apl. | 15 | M | 12 | 18 | 36·77 | … | 143 | 29 | 47·8 | 10·0 |
| 455 | … | … | … | Mar. | 27 | R | 12 | 18 | 57·33 | 5 | 129 | 43 | 26·9 | 9·3 |
| 456 | … | … | … | Mar. | 17 | M | 12 | 18 | 59·07 | 5 | 147 | 20 | 50·3 | 7·5 |
| 457 | … | … | … | Apl. | 13 | M | 12 | 19 | 13·36 | … | 144 | 3 | 50·2 | 7·9 |
| 458 | … | … | … | Apl. | 28 | M | 12 | 19 | 49·79 | … | 124 | 12 | 47·8 | 8·5 |
| 459 | … | … | … | Apl. | 14 | M | 12 | 20 | 42·62 | … | 141 | 18 | 58·0 | 7·8 |
| 460 | 5725 Taylor | … | … | Mar. | 7 | M | 12 | 21 | 6·95 | … | 145 | 38 | 27·1 | 7·0 |
| 461 | 21 Virginis q | | … | Apl. | 10 | M | 12 | 26 | 42·47 | … | 99 | 41 | 45·0 | 5·5 |
| | … | … | … | " | 11 | M | | 26 | 42·49 | … | | 41 | 45·4 | 5·5 |
| 462 | 9 Corvi β | … | … | Apl. | 1 | M | 12 | 27 | 11·80 | … | 112 | 38 | 20·3 | … |
| | … | … | … | May | 11 | M | | 27 | 11·73 | … | | 38 | 20·1 | … |
| | … | … | … | " | 18 | R | | 27 | 11·65 | … | | 38 | 19·6 | … |
| | … | … | … | June | 1 | M | | 27 | 11·68 | … | | 38 | 18·7 | … |
| | … | … | … | " | 9 | M | | 27 | 11·70 | … | | 38 | 20·0 | … |
| 463 | … | … | … | Apl. | 14 | M | 12 | 27 | 46·22 | … | 140 | 55 | 11·2 | 9·0 |
| 464 | … | … | … | Apl. | 13 | M | 12 | 30 | 47·53 | … | 142 | 19 | 22·4 | 9·0 |
| 465 | R Virginis Var. 2 | | … | Apl. | 23 | R | 12 | 31 | 32·80 | … | 82 | 15 | 27·7 | 8·8 |
| | … | … | … | May | 4 | M | | 31 | 32·81 | … | | 15 | 27·2 | 9·2 |
| | … | … | … | " | 7 | M | | 31 | 32·78 | … | | 15 | 27·2 | 9·2 |
| 466 | … | … | … | May | 21 | R | 12 | 31 | 48·80 | 5 | 84 | 30 | 11·7 | 9·2 |
| 467 | 26 Virginis χ | | … | Mar. | 6 | M | 12 | 32 | 10·66 | … | 97 | 14 | 29·5 | … |
| | … | … | … | " | 7 | M | | 32 | 10·63 | … | | 14 | 27·3 | … |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 467 | 26 Virginis χ ... | Apl. | 30 | M | 12 | 32 | 10·73 | ... | 97 | 14 | 27·7 | 5·0 |
| | ... ... ... | May | 1 | M | | 32 | 10·52 | ... | | 14 | 26·2 | 5·0 |
| | ... ... ... | „ | 28 | R | | 32 | 10·65 | 5 | | 14 | 28·3 | ... |
| 468 | ... ... ... | Apl. | 15 | M | 12 | 32 | 46·05 | ... | 143 | 7 | 2·1 | 9·0 |
| 469 | ... ... ... | Apl. | 9 | M | 12 | 33 | 43·61 | ... | 145 | 23 | 10·0 | 8·9 |
| 470 | 5850 Taylor ... ... | Apl. | 8 | M | 12 | 34 | 23·55 | ... | 144 | 0 | 34·8 | 7·8 |
| 471 | 29 Virginis $\gamma^1$ ... | May | 26 | R | 12 | 34 | 43·09 | ... | 90 | 41 | 49·0 | ... |
| 472 | S Ursæ Majoris Var. 2. | May | 20 | R | 12 | 37 | 54·71 | 3 | 28 | 9 | 19·6 | 8·5 |
| 473 | 5863 Taylor... ... | Apl. | 11 | M | 12 | 38 | 18·48 | ... | 143 | 51 | 43·8 | 7·5 |
| 474 | ... ... ... | Apl. | 13 | M | 12 | 41 | 36·48 | ... | 141 | 49 | 14·8 | 8·8 |
| 475 | ... ... ... | Apl. | 9 | M | 12 | 42 | 20·72 | ... | 147 | 18 | 24·6 | 9·0 |
| 476 | ... ... ... | Apl. | 15 | M | 12 | 42 | 44·02 | ... | 142 | 51 | 35·8 | 8·9 |
| 477 | ... ... ... | Apl. | 14 | M | 12 | 42 | 47·52 | ... | 139 | 24 | 55·7 | 9·0 |
| 478 | ... ... ... | Apl. | 16 | R | 12 | 43 | 13·93 | 5 | 129 | 7 | 30·6 | 8·9 |
| 479 | 40 Virginis ψ ... | Mar. | 6 | M | 12 | 47 | 14·00 | ... | 98 | 47 | 39·0 | ... |
| | ... ... ... | Apl. | 30 | M | | 47 | 13·84 | ... | | 47 | 38·5 | 5·0 |
| 480 | 99 R. P. L. ... ... | May | 26 | R | 12 | 48 | 10·25 | 2 | 5 | 50 | 34·5 | ... |
| | ... ... *s.p.* | Oct. | 17 | R | | 48 | 9·91 | 2 | | 50 | 33·6 | ... |
| 481 | ... ... ... | Apl. | 8 | M | 12 | 49 | 20·13 | ... | 145 | 23 | 53·6 | 8·9 |
| 482 | 12 Can. Ven. α ... | May | 16 | R | 12 | 49 | 36·74 | ... | 50 | 56 | 29·0 | ... |
| | ... ... ... | „ | 19 | R | | 49 | 36·77 | ... | | 56 | 28·9 | ... |
| | ... ... ... | „ | 20 | R | | 49 | 36·77 | ... | | 56 | 28·2 | ... |
| | ... ... ... | „ | 21 | R | | 49 | 36·75 | 5 | | 56 | 29·8 | ... |
| | ... ... ... | „ | 27 | R | | 49 | 36·79 | ... | | 56 | 28·8 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension 1863 | | | No. of Wires | Mean Polar Distance 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 483 | [illegible] Taylor ... ... | Apl. | 9 | M | 12 | 51 | 30·95 | ... | 143 | 38 | 16·2 | 8·9 |
| 484 | ... ... ... | Apl. | 10 | M | 12 | 53 | 4·14 | 5 | 142 | 23 | 43·8 | 8·9 |
| | ... ... ... | ,, | 13 | M | | 53 | 4·40 | ... | | 23 | 41·1 | 7·9 |
| 485 | ... ... ... | Apl. | 27 | M | 12 | 53 | 22·37 | ... | 135 | 44 | 7·9 | 8·0 |
| 486 | ... ... ... | Apl. | 14 | M | 12 | 54 | 31·52 | ... | 130 | 18 | 3·3 | 9·2 |
| 487 | ... ... ... | Apl. | 29 | M | 12 | 56 | 56·17 | ... | 123 | 21 | 51·4 | 8·3 |
| 488 | 5351 Lacaille ... | Apl. | 23 | R | 12 | 57 | 4·42 | ... | 120 | 56 | 47·0 | 7·8 |
| 489 | 51 Virginis θ... ... | Apl. | 1 | M | 13 | 2 | 51·29 | ... | 94 | 48 | 26·1 | ... |
| | ... ... ... | May | 20 | R | | 2 | 51·60 | ... | | 48 | 24·3 | ... |
| | ... ... ... | ,, | 26 | R | | 2 | 51·56 | ... | | 48 | 24·4 | ... |
| | ... ... ... | ,, | 27 | R | | 2 | 51·49 | ... | | 48 | 25·2 | ... |
| | ... ... ... | ,, | 30 | R | | 2 | 51·45 | ... | | 48 | 24·8 | ... |
| 490 | 6057 Taylor ... ... | Mar. | 7 | M | 13 | 3 | 43·62 | ... | 149 | 11 | 25·0 | 6·0 |
| 491 | ... ... ... | Apl. | 15 | M | 13 | 4 | 28·48 | 5 | 138 | 10 | 13·4 | 9·2 |
| 492 | ... ... ... | Apl. | 11 | M | 13 | 4 | 32·00 | ... | 143 | 12 | 0·9 | 9·5 |
| 493 | ... ... ... | Apl. | 29 | M | 13 | 5 | 33·00 | ... | 124 | 16 | 11·8 | 8·9 |
| 494 | W Virginis Var. 1 ... | May | 21 | R | 13 | 6 | 51·01 | ... | 105 | 49 | 35·5 | 8·8 |
| | ... ... ... | ,, | 22 | R | | 6 | 51·03 | ... | | 49 | 31·7 | ... |
| 495 | ... ... ... | Apl. | 14 | M | 13 | 7 | 35·75 | ... | 130 | 45 | 53·0 | 9·0 |
| 496 | ... ... ... | Apl. | 23 | R | 13 | 9 | 42·08 | 6 | 120 | 55 | 57·0 | 8·7 |
| 497 | 58 Virginis ... ... | May | 28 | R | 13 | 10 | 16·63 | ... | 90 | 49 | 23·5 | ... |
| | ... ... ... | ,, | 29 | R | | 10 | 16·62 | ... | | 49 | 23·6 | ... |
| 498 | 6129 Taylor ... ... | May | 16 | R | 13 | 12 | 9·65 | ... | 130 | 28 | 12·3 | 7·4 |
| 499 | ... ... ... | May | 1 | M | 13 | 12 | 49·63 | ... | 122 | 56 | 14·5 | 7·9 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 500 | 5503 Lacaille ... | May | 20 | R | 13 | 14 | 5·50 | 5 | 125 | 23 | 32·1 | 8·0 |
| 501 | ... ... ... | Apl. | 11 | M | 13 | 15 | 43·91 | ... | 145 | 12 | 31·9 | 9·0 |
| 502 | 67 Virginis a... ... | Mar. | 7 | M | 13 | 17 | 58·68 | .. | 100 | 26 | 42·9 | .. |
| | ... ... ... | May | 1 | M | | 17 | 58·61 | ... | | 26 | 41·2 | ... |
| | ... ... ... | ,, | 2 | M | | 17 | 58·58 | ... | | 26 | 42·4 | ... |
| | ... ... .. | ,, | 5 | M | | 17 | 58·62 | ... | | 26 | 43·2 | ... |
| | ... ... ... | ,, | 16 | R | | 17 | 58·70 | ... | | 26 | 43·2 | . |
| | ... ... .. | ,, | 28 | R | | 17 | 58·76 | ... | | 26 | 42·5 | ... |
| | ... ... ... | June | 1 | M | | 17 | 58·69 | ... | | 26 | 42·5 | ... |
| | ... ... ... | ,, | 3 | M | | 17 | 58·80 | ... | | 26 | 42·2 | ... |
| | ... ... ... | ,, | 5 | M | | 17 | 58·64 | ... | | 26 | 42·6 | ... |
| 503 | 12872 O. A. S. ... | May | 6 | M | 13 | 19 | 17·48 | .. | 116 | 56 | 5·0 | 10·2 |
| 504 | 5546 Lacaille ... | Apl. | 14 | M | 13 | 19 | 37·46 | ... | 143 | 27 | 9·0 | 9·0 |
| 505 | 103 R. P. L. ... s.p. | Dec. | 7 | M | 13 | 20 | 18·58 | 5 | 4 | 31 | 44·6 | ... |
| 506 | R Hydræ Var. 1 ... | Apl. | 15 | M | 13 | 22 | 13·96 | ... | 112 | 34 | 20·4 | 6·7 |
| | ... ... ... | ,, | 16 | R | | 22 | 13·87 | ... | | 34 | 19·8 | ... |
| | ... ... ... | ,, | 29 | M | | 22 | 13·90 | ... | | 34 | 18·8 | 6·8 |
| | ... ... ... | May | 7 | M | | 22 | 13·82 | ... | | 34 | 19·5 | 7·0 |
| 507 | 76 Virginis h... ... | Mar. | 7 | M | 13 | 25 | 45·32 | ... | 100 | 27 | 30·8 | ... |
| | ... ... .. | May | 1 | M | | 25 | 45·23 | . | | 27 | 28·7 | 5·0 |
| | ... ... ... | ,, | 2 | M | | 25 | 45·39 | ... | | 27 | 29·6 | ... |
| 508 | S Virginis Var. 6 ... | Apl. | 13 | M | 13 | 25 | 50·99 | ... | 96 | 29 | 22·8 | 7·5 |
| | ... ... .. | ,, | 14 | M | | 25 | 50·83 | .. | | 29 | 21·3 | 7·6 |
| | ... ... .. | ,, | 23 | R | | 25 | 50·90 | ... | | 29 | 22·8 | 7·1 |
| | ... ... .. | May | 5 | M | | 25 | 50·84 | ... | | 29 | 21·7 | 7·5 |
| 509 | 79 Virginis ζ ... | Apl. | 1 | M | 13 | 27 | 42·43 | ... | 89 | 53 | 40·4 | ... |
| | ... ... ... | May | 18 | R | | 27 | 42·81 | ... | | 53 | 40·7 | . |
| | ... ... .. | ,, | 19 | R | | 27 | 42·93 | ... | | 53 | 40·1 | ... |
| | ... ... .. | ,, | 20 | R | | 27 | 42·85 | ... | | 53 | 39·2 | .. |
| | .. ... .. | ,, | 21 | R | | 27 | 42·83 | ... | | 53 | 39·5 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star | Date of Observation. | | Observer. | Mean Right Ascension 1863. | | | No. of Wires. | Mean Polar Distance 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 509 | 79 Virginis ζ ... | May | 23 | R | 13 | 27 | 42·92 | ... | 89 | 53 | 39·5 | ... |
| | ... ... ... | „ | 26 | R | | 27 | 42·89 | ... | | 53 | 40·7 | ... |
| | ... ... ... | „ | 27 | R | | 27 | 42·83 | ... | | 53 | 39·6 | ... |
| | ... ... ... | June | 1 | M | | 27 | 42·70 | ... | | 53 | 38·7 | ... |
| | ... ... ... | „ | 2 | M | | 27 | 42·77 | ... | | 53 | 38·9 | ... |
| | ... ... ... | „ | 5 | M | | 27 | 42·99 | ... | | 53 | 40·0 | ... |
| | ... ... ... | „ | 10 | M | | 27 | 42·76 | ... | | 53 | 40·7 | ... |
| 510 | ... ... ... | Apl. | 17 | R | 13 | 32 | 54·55 | 5 | 129 | 1 | 18·1 | 7·8 |
| 511 | 6363 Taylor ... ... | Apl. | 15 | M | 13 | 36 | 34·58 | 5 | 147 | 33 | 9·7 | 8·0 |
| 512 | ... ... ... | May | 28 | R | 13 | 37 | 27·78 | ... | 128 | 39 | 58·8 | 9·0 |
| 513 | ... ... ... | May | 7 | M | 13 | 38 | 10·39 | 5 | 122 | 46 | 41·4 | 8·8 |
| 514 | ... ... ... | May | 21 | R | 13 | 40 | 26·82 | 5 | 129 | 23 | 43·2 | 9·3 |
| 515 | 25463 Lalande ... | Apl. | 23 | R | 13 | 42 | 15·15 | ... | 64 | 57 | 27·9 | 9·5 |
| | ... ... ... | „ | 29 | M | | 42 | 15·27 | ... | | 57 | 25·8 | 9·0 |
| | ... ... ... | May | 4 | M | | 42 | 15·09 | ... | | 57 | 25·7 | 9·3 |
| 516 | 89 Virginis ... ... | May | 29 | R | 13 | 42 | 25·83 | 5 | 107 | 27 | 1·1 | ... |
| | ... ... ... | „ | 30 | R | | 42 | 25·80 | ... | | 27 | 0·2 | ... |
| 517 | ... ... ... | May | 8 | M | 13 | 43 | 10·81 | ... | 123 | 5 | 14·3 | 8·3 |
| 518 | ... ... ... | May | 30 | R | 13 | 44 | 11·61 | ... | 127 | 56 | 20·1 | 9·0 |
| 519 | ... ... ... | May | 28 | R | 13 | 45 | 19·85 | ... | 128 | 22 | 47·0 | 9·7 |
| 520 | ... ... ... | Apl. | 30 | M | 13 | 45 | 39·03 | ... | 122 | 54 | 12·5 | 8·5 |
| | ... ... ... | May | 1 | M | | 45 | 38·93 | ... | | 54 | 15·7 | 8·0 |
| 521 | 8 Boötis η ... ... | May | 5 | M | 13 | 48 | 9·60 | 5 | 70 | 54 | 51·6 | ... |
| | ... ... ... | „ | 19 | R | | 48 | 9·60 | ... | | 54 | 52·8 | ... |
| | ... ... ... | „ | 21 | R | | 48 | 9·62 | ... | | 54 | 51·7 | ... |
| | ... ... ... | „ | 22 | R | | 48 | 9·63 | ... | | 54 | 51·7 | ... |
| | ... ... ... | June | 1 | M | | 48 | 9·58 | ... | | 54 | 51·3 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | | | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 521 | 8 Bootis η | ... | ... | June | 2 | M | 13 | 48 | 9·68 | ... | 70 | 54 | 52·4 | ... |
| | ... | ... | ... | ,, | 3 | M | | 48 | 9·61 | .. | | 54 | 52·0 | .. |
| | .. | ... | ... | ,, | 5 | M | | 48 | 9·65 | 5 | | 54 | 52·6 | ... |
| | ... | ... | ... | ,, | 11 | M | | 48 | 9·65 | 5 | | 54 | 50·6 | ... |
| 522 | .. | ... | ... | May | 7 | M | 13 | 50 | 37·09 | ... | 123 | 43 | 37·5 | 8·0 |
| 523 | 25759 Lalande | | . | Apl. | 29 | M | 13 | 54 | 39·29 | ... | 67 | 21 | 29·4 | 7·5 |
| | ... | .. | ... | May | 1 | M | | 54 | 39·29 | ... | | 21 | 28·3 | 7·5 |
| | ... | ... | .. | ,, | 6 | M | | 54 | 39·28 | ... | | 21 | 29·6 | 7·5 |
| | ... | ... | .. | ,, | 20 | R | | 54 | 39·03 | 5 | | 21 | 29·9 | 8·0 |
| | ... | .. | ... | ,, | 27 | R | | 54 | 39·30 | . | | 21 | 30·9 | ... |
| 524 | 93 Virginis τ... | | ... | May | 28 | R | 13 | 54 | 40·54 | .. | 87 | 47 | 27·8 | .. |
| | ... | .. | ... | ,, | 29 | R | | 54 | 40·54 | ... | | 47 | 27·8 | ... |
| | ... | ... | ... | June | 2 | M | | 54 | 40·52 | 3 | | 47 | 26·8 | . |
| | ... | ... | ... | ,, | 3 | M | | 54 | 40·49 | ... | | 47 | 26·8 | ... |
| | . | ... | ... | ,, | 5 | M | | 54 | 40·45 | ... | | 47 | 26·7 | ... |
| 525 | 25896 Lalande | | ... | Apl. | 29 | M | 13 | 59 | 51·57 | 3 | 67 | 10 | 36·2 | 7·5 |
| | ... | ... | ... | May | 2 | M | | 59 | 51·42 | ... | | 10 | 37·4 | 7·5 |
| | .. | .. | ... | ,, | 4 | M | | 59 | 51·46 | .. | | 10 | 35·0 | 7·5 |
| | .. | ... | ... | ,, | 6 | M | | 59 | 51·46 | .. | | 10 | 34·5 | 7·5 |
| 526 | 6585 Taylor ... | | ... | May | 8 | M | 14 | 1 | 18·94 | ... | 124 | 13 | 46·7 | 7·8 |
| 527 | ... | ... | ... | May | 30 | R | 14 | 2 | 22·39 | ... | 129 | 3 | 58·4 | ... |
| 528 | 108 R. P. L ... | | ... | May | 19 | R | 14 | 4 | 4·35 | 3 | 3 | 35 | 11·3 | ... |
| | ... | ... | s.p. | Nov. | 9 | M | | 4 | 4·13 | 3 | | 35 | 11·2 | . |
| 529 | U Bootis Var. 4 | | ... | May | 27 | R | 14 | 4 | 18·65 | ... | 79 | 32 | 14·1 | 9·7 |
| 530 | 6616 Taylor ... | | ... | Apl. | 30 | M | 14 | 5 | 26·28 | ... | 146 | 26 | 31·8 | .. |
| 531 | . | .. | ... | May | 7 | M | 14 | 6 | 5·20 | 5 | 135 | 1 | 0·6 | 8·0 |
| 532 | 16 Bootis α | | ... | May | 26 | R | 14 | 9 | 24·80 | ... | 70 | 6 | 11·2 | ... |
| | ... | ... | ... | June | 9 | M | | 9 | 24·72 | ... | | 6 | 12·2 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number | Star | Date of Observation | | Observer | Mean Right Ascension 1863 | | | No. of Wires | Mean Polar Distance 1863. | | | Magnitude |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 532 | 16 Boötis a ... | June | 10 | M | 14 | 9 | 24·70 | ... | 70 | 6 | 12·0 | ... |
| | — ... — | .. | 11 | M | | 9 | 24·74 | ... | | 6 | 10·6 | ... |
| | — — ... | .. | 18 | R | | 9 | 24·84 | ... | | 6 | 11·5 | ... |
| 533 | 100 Virginis λ ... | Apl. | 28 | M | 14 | 11 | 41·60 | ... | 102 | 44 | 18·6 | — |
| | — — — | May | 2 | M | | 11 | 41·83 | .. | | 44 | 19·1 | — |
| | — — .. | June | 27 | R | | 11 | 42·01 | ... | | 44 | 19·4 | — |
| 534 | — — — | May | 8 | M | 14 | 12 | 26·80 | 5 | 136 | 49 | 32·4 | 9·3 |
| 535 | — — | Apl. | 30 | M | 14 | 14 | 30·00 | 3 | 122 | 35 | 29·6 | 8·9 |
| 536 | — . | May | 9 | M | 14 | 15 | 15·00 | ... | 122 | 11 | 18·7 | — |
| 537 | 6709 Taylor .. | May | 7 | M | 14 | 15 | 55·15 | 6 | 119 | 3 | 2·1 | 7·0 |
| 538 | .. | May | 1 | M | 14 | 17 | 21·04 | — | 123 | 13 | 6·2 | 9·9 |
| 539 | 6740 Taylor ... | Apl. | 29 | M | 14 | 19 | 1·39 | ... | 133 | 42 | 38·0 | 7·6 |
| 540 | .. — — | Apl. | 30 | M | 14 | 21 | 53·94 | ... | 122 | 33 | 43·7 | 8·7 |
| 541 | 5962 Lacaille — | May | 18 | R | 14 | 22 | 38·49 | 5 | 120 | 46 | 28·6 | 8·0 |
| 542 | .. — .. | May | 8 | M | 14 | 23 | 38·57 | 5 | 136 | 54 | 8·5 | 8·0 |
| 543 | — — — | May | 4 | M | 14 | 24 | 9·13 | ... | 123 | 48 | 17·8 | 8·0 |
| 544 | 25 Boötis ρ ... | May | 20 | R | 14 | 25 | 55·47 | ... | 80 | 1 | 32·7 | — |
| | — . — | .. | 22 | R | | 25 | 55·55 | ... | | 1 | 33·4 | .. |
| | — — . | June | 2 | M | | 25 | 55·40 | .. | | 1 | 33·1 | .. |
| | . — — | .. | 3 | M | | 25 | 55·51 | .. | | 1 | 32·7 | ... |
| | ... — | .. | 9 | M | | 25 | 55·37 | .. | | 1 | 35·4 | — |
| | — — — | .. | 18 | R | | 25 | 55·48 | 6 | | 1 | 33·7 | — |
| 545 | — — .. | May | 1 | M | 14 | 26 | 40·04 | ... | 123 | 19 | 45·2 | 9·5 |
| 546 | — — — | May | 15 | M | 14 | 29 | 23·02 | — | 124 | 55 | 13·4 | 7·8 |
| 547 | 6027 Lacaille | Apl | 30 | M | 14 | 31 | 0·60 | 5 | 122 | 47 | 2·2 | 7·7 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension, 1863. h. | m. | s. | No. of Wires. | Mean Polar Distance, 1863. ° | ′ | ″ | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 548 | R Bootis Var. 1 .. | May 16 | R | 14 | 31 | 9·03 | ... | 62 | 40 | 3·0 | 7·4 |
| | ... .. .. | ,, 18 | R | | 31 | 9·00 | ... | | 40 | 3·3 | .. |
| | . .. ... | ,, 27 | R | | 31 | 9·02 | ... | | 40 | 3·0 | 9·0 |
| 549 | . ... | May 7 | M | 14 | 32 | 38·73 | .. | 121 | 44 | 2·6 | 7·6 |
| 550 | 6848 Taylor ... .. | May 8 | M | 14 | 32 | 44·22 | .. | 136 | 41 | 2·4 | 7·7 |
| 551 | 5 Libræ ... ... | May 11 | M | 14 | 38 | 24·82 | ... | 104 | 52 | 48·4 | ... |
| 552 | 36 Bootis ε ... .. | May 22 | R | 14 | 39 | 0·12 | ... | 62 | 20 | 48·0 | ... |
| | .. .. ... | ,, 28 | R | | 39 | 0·08 | .. | | 20 | 47·7 | ... |
| | ... ... .. | June 9 | M | | 39 | 0·16 | 5 | | 20 | 48·9 | ... |
| | ... . .. | ,, 10 | M | | 39 | 0·23 | ... | | 20 | 48·0 | .. |
| | ... .. .. | ,, 18 | R | | 39 | 0·05 | .. | | 20 | 48·1 | ... |
| 553 | ... ... ... | May 15 | M | 14 | 39 | 10·66 | ... | 124 | 9 | 20·8 | 7·7 |
| 554 | 27022 Lalande ... | May 4 | M | 14 | 43 | 10·44 | ... | 78 | 56 | 9·3 | 7·6 |
| | ... ... ... | ,, 5 | M | | 43 | 10·44 | .. | | 56 | 9·7 | 7·6 |
| | ... ... ... | ,, 6 | M | | 43 | 10·44 | .. | | 56 | 8·9 | 7·5 |
| | ... ... ... | ,, 18 | R | | 43 | 10·41 | ... | | 56 | 10·4 | ... |
| 555 | 9 Libræ α² ... ... | Apl. 1 | M | 14 | 43 | 18·11 | 5 | 105 | 28 | 13·0 | ... |
| | ... ... ... | May 2 | M | | 43 | 18·15 | ... | | 28 | 13·2 | .. |
| | .. .. ... | June 20 | R | | 43 | 18·14 | .. | | 28 | 13·2 | ... |
| | ... ... ... | July 10 | M | | 43 | 18·21 | ... | | 28 | 12·0 | ... |
| 556 | 27123 Laland ... | May 7 | M | 14 | 47 | 19·89 | ... | 109 | 27 | 7·4 | 7·8 |
| | ... ... . | ,, 8 | M | | 47 | 20·04 | .. | | 27 | 7·5 | 7·8 |
| | ... ... ... | ,, 9 | M | | 47 | 20·02 | . | | 27 | 8·9 | . |
| | .. ... ... | ,, 27 | R | | 47 | 20·00 | .. | | 27 | 7·9 | 9·0 |
| 557 | . ... .. | May 13 | M | 14 | 51 | 31·68 | 5 | 123 | 12 | 29·6 | 8·9 |
| 558 | .. ... ... | May 8 | M | 14 | 57 | 38·39 | ... | 121 | 30 | 27·2 | 8·3 |
| 559 | 43 Bootis ψ .. ... | May 29 | R | 14 | 58 | 34·52 | 5 | 62 | 31 | 0·1 | ... |
| | ... ... .. | June 10 | M | | 58 | 34·58 | ... | | 30 | 59·2 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star | Date of Observation. | | Observer | Mean Right Ascension. 1863. | | | No. of Wires | Mean Polar Distance 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h | m. | s. | | ° | ′ | ″ | |
| [illegible] | 43 Bootis ψ ... ... | June | 11 | M | 14 | 58 | 34·54 | ... | 62 | 30 | 59·8 | ... |
| | ... ... ... | July | 10 | M | | 58 | 34·45 | ... | | 30 | 59·4 | ... |
| | ... ... ... | „ | 11 | M | | 58 | 34·53 | ... | | 30 | 58·6 | ... |
| 560 | 7079 Taylor ... ... | May | 11 | M | 15 | 3 | 16·26 | ... | 123 | 7 | 1·1 | ... |
| 561 | ... ... ... | May | 15 | M | 15 | 3 | 30·06 | ... | 122 | 15 | 27·9 | 8·5 |
| 562 | 24 Libræ ι¹ ... ... | May | 4 | M | 15 | 4 | 25·09 | ... | 109 | 16 | 14·3 | 5·6 |
| | ... ... ... | „ | 30 | R | | 4 | 25·03 | ... | | 16 | 14·6 | ... |
| 563 | 111 B. P. L. ... ... | May | 9 | M | 15 | 5 | 51·04 | 5 | 6 | 31 | 0·1 | ... |
| | ... ... s.p. | Dec. | 12 | M | | 5 | 51·16 | 3 | | 31 | 5·0 | ... |
| 564 | ... ... ... | May | 27 | R | 15 | 6 | 30·40 | 5 | 130 | 26 | 10·4 | 8·0 |
| 565 | 27 Libræ β ... ... | May | 23 | R | 15 | 9 | 38·57 | ... | 98 | 52 | 30·6 | ... |
| | ... ... ... | „ | 29 | R | | 9 | 38·26 | ... | | 52 | 30·0 | ... |
| | ... ... ... | June | 11 | M | | 9 | 38·32 | ... | | 52 | 29·0 | ... |
| | ... ... ... | „ | 20 | R | | 9 | 38·26 | 4 | | 52 | 31·2 | ... |
| | ... ... ... | „ | 26 | R | | 9 | 38·19 | ... | | 52 | 30·0 | ... |
| | ... ... ... | „ | 27 | R | | 9 | 38·17 | ... | | 52 | 29·0 | ... |
| 566 | ... ... ... | May | 21 | R | 15 | 11 | 47·26 | ... | 130 | 23 | 46·9 | 9·3 |
| 567 | ... ... ... | May | 15 | M | 15 | 14 | 8·23 | ... | 123 | 7 | 17·9 | 9·2 |
| 568 | S Serpentis Var. 3 ... | May | 27 | R | 15 | 15 | 14·91 | 4 | 75 | 11 | 25·9 | 10·3 |
| 569 | ... ... ... | May | 30 | R | 15 | 20 | 19·71 | ... | 130 | 8 | 21·5 | 9·0 |
| 570 | 32 Libræ ξ¹ ... ... | May | 11 | M | 15 | 20 | 32·04 | ... | 106 | 14 | 11·0 | ... |
| | ... ... ... | „ | 30 | R | | 20 | 32·11 | ... | | 14 | 9·4 | ... |
| 571 | ... ... ... | May | 28 | R | 15 | 21 | 37·08 | ... | 129 | 25 | 47·1 | 9·0 |
| 572 | [illegible] Taylor ... ... | June | 3 | M | 15 | 22 | 2·63 | ... | 123 | 6 | 20·8 | 7·9 |
| 573 | 114 B. P. L. ... s.p. | Dec. | 15 | M | 15 | 22 | 32·08 | 3 | 2 | 14 | 40·8 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 574 | 7240 Taylor ... ... | May | 21 | R | 15 | 24 | 20·21 | ... | 130 | 1 | 16·1 | 7·8 |
| 575 | ... .. ... | May | 15 | M | 15 | 24 | 56·73 | ... | 122 | 43 | 21·4 | 7·0 |
| 576 | 5 Coronæ Borealis α ... | May | 23 | R | 15 | 28 | 53·12 | ... | 62 | 49 | 21·2 | .. |
| | ... ... ... | June | 27 | R | | 28 | 53·23 | 5 | | 49 | 20·2 | ... |
| | ... ... ... | July | 10 | M | | 28 | 53·33 | ... | | 49 | 19·2 | ... |
| 577 | ... ... ... | May | 20 | R | 15 | 28 | 55·03 | ... | 119 | 38 | 51·9 | 8·8 |
| 578 | ... ... ... | May | 28 | R | 15 | 30 | 6·00 | .. | 129 | 33 | 14·7 | 9·3 |
| 579 | 43 Libræ κ ... ... | May | 4 | M | 15 | 34 | 3·55 | ... | 109 | 13 | 54·7 | 5·0 |
| 580 | ... .. ... | May | 18 | R | 15 | 34 | 46·79 | ... | 129 | 1 | 16·1 | 8·3 |
| 581 | XV. 704 W. B. E. ... | May | 15 | M | 15 | 37 | 12·38 | ... | 92 | 34 | 38·9 | 7·0 |
| | ... ... ... | ,, | 16 | R | | 37 | 12·47 | ... | | 34 | 37·8 | 8·5 |
| | ... ... ... | ,, | 20 | R | | 37 | 12·44 | 5 | | 34 | 38·7 | 9·7 |
| 582 | 24 Serpentis α ... | May | 23 | R | 15 | 37 | 31·29 | ... | 83 | 8 | 27·6 | ... |
| | ... ... ... | June | 20 | R | | 37 | 31·28 | ... | | 8 | 27·9 | ... |
| | ... ... ... | ,, | 26 | R | | 37 | 31·26 | ... | | 8 | 27·5 | ... |
| | ... ... ... | ,, | 27 | R | | 37 | 31·27 | ... | | 8 | 26·9 | ... |
| | ... ... ... | July | 10 | M | | 37 | 31·23 | ... | | 8 | 26·3 | .. |
| | ... ... ... | ,, | 13 | M | | 37 | 31·19 | ... | | 8 | 26·7 | ... |
| 583 | 28787 Lalande ... | May | 27 | R | 15 | 42 | 3·02 | ... | 92 | 48 | 42·5 | 8·7 |
| | .. ... ... | ,, | 29 | R | | 42 | 2·82 | ... | | 48 | 42·7 | . |
| | ... ... ... | June | 9 | M | | 42 | 2·84 | ... | | 48 | 41·4 | 8·0 |
| 584 | R Coronæ Bor. Var. 1. | May | 20 | R | 15 | 42 | 55·73 | 4 | 61 | 25 | 16·8 | 7·8 |
| | ... ... ... | June | 10 | M | | 42 | 55·89 | ... | | 25 | 17·0 | 7·0 |
| 585 | R Serpentis Var. 2 ... | May | 16 | R | 15 | 44 | 22·70 | .. | 74 | 26 | 27·0 | 9·4 |
| 586 | 46 Libræ θ ... ... | June | 27 | R | 15 | 46 | 1·66 | 4 | 106 | 19 | 27·5 | ... |
| 587 | ... ... | June | 1 | M | 15 | 50 | 59·46 | | 143 | 45 | 3·8 | 7·0 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension, 1863. h | m | s | No. of Wires. | Mean Polar Distance 1863. ° | ′ | ″ | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 588 | 7 Scorpii δ ... . | June 27 | R | 15 | 52 | 14·19 | 4 | 112 | 13 | 43·4 | ... |
| 589 | 7439 Taylor ... ... | May 20 | R | 15 | 54 | 22·91 | 5 | 126 | 44 | 53·5 | 8·5 |
| 590 | 8 Scorpii β¹ ... .. | Apl. 28 | P | 15 | 57 | 28·62 | ... | 109 | 25 | 35·6 | ... |
| | ... ... .. | May 21 | R | | 57 | 28·53 | ... | | 25 | 39·0 | ... |
| | ... .. .. | „ 30 | R | | 57 | 28·52 | ... | | 25 | 38·2 | ... |
| | ... ... .. | June 26 | R | | 57 | 28·45 | 5 | | 25 | 39·3 | ... |
| | ... ... .. | July 13 | M | | 57 | 28·41 | ... | | 25 | 38·4 | ... |
| | ... ... .. | „ 14 | M | | 57 | 28·53 | ... | | 25 | 38·1 | ... |
| 591 | 29891 Lalande .. | May 2 | P | 16 | 1 | 45·42 | ... | 102 | 41 | 12·9 | ... |
| | ... ... .. | „ 29 | R | | 1 | 45·40 | ... | | 41 | 13·6 | ... |
| | ... ... .. | July 13 | M | | 1 | 45·42 | ... | | 41 | 14·0 | 7·0 |
| | ... ... .. | „ 14 | M | | 1 | 45·52 | ... | | 41 | 13·1 | 7·0 |
| 592 | 116 R. P. L. . ... | June 30 | R | 16 | 4 | 55·30 | 3 | 4 | 18 | 37·2 | ... |
| | ... ... s.p. | Nov. 21 | R | | 4 | 55·12 | 3 | | 18 | 33·8 | ... |
| | ... ... s.p. | „ 26 | R | | 4 | 55·76 | 3 | | 18 | 36·5 | ... |
| 593 | XVI. 83 W. B. E. . | May 30 | R | 16 | 5 | 59·73 | 4 | 102 | 40 | 55·2 | ... |
| 594 | 1 Ophiuchi δ ... .. | July 16 | R | 16 | 7 | 10·31 | ... | 93 | 20 | 20·9 | ... |
| 595 | 29910 Lalande .. | May 29 | R | 16 | 8 | 6·82 | 5 | 105 | 32 | 21·3 | ... |
| 596 | R Scorpii Var. 1. . | Apl 28 | P | 16 | 9 | 29·13 | 2 | 112 | 36 | 12·2 | 10·5 |
| | ... ... ... | May 1 | P | | 9 | 29·32 | ... | | 36 | 11·3 | 10·3 |
| | ... ... ... | „ 2 | P | | 9 | 29·26 | 4 | | 36 | 11·1 | 10·3 |
| | ... ... ... | „ 16 | R | | 9 | 29·55 | 3 | | 36 | 15·4 | 10·7 |
| 597 | ... ... ... | July 18 | R | 16 | 9 | 39·76 | 4 | 113 | 33 | 22·5 | 10·0 |
| 598 | 20 Scorpii σ ... | June 1 | M | 16 | 12 | 52·00 | ... | 115 | 15 | 37·9 | ... |
| 599 | 1[illegible] O A S. .. | May 30 | R | 16 | 13 | 10·71 | 4 | 107 | 21 | 51·8 | 9·0 |
| 600 | ... ... . | June 2 | M | 16 | 14 | 7·95 | ... | 146 | 10 | 55·2 | 7·5 |
| 601 | U Scorpii Var. 4 | May 21 | R | 16 | 14 | 37·08 | 5 | 107 | 33 | 7·4 | ... |
| | ... | „ 23 | R | | 14 | 37·45 | 1 | | 33 | 5·7 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 602 | ... ... ... | May | 20 | R | 16 | 15 | 42·36 | 6 | 128 | 7 | 31·7 | 9·5 |
| 603 | 15607 O. A. S. ... | June | 11 | M | 16 | 16 | 48·38 | ... | 107 | 11 | 21·1 | 9·0 |
| | ... ... ... | „ | 30 | R | | 16 | 45·47 | 5 | | 14 | 19·7 | ... |
| | ... ... ... | July | 13 | M | | 16 | 48·43 | ... | | 14 | 20·0 | 9·0 |
| 604 | ... ... ... | May | 28 | R | 16 | 17 | 55·39 | 5 | 129 | 30 | 26·5 | 9·2 |
| 605 | 21 Scorpii α ... ... | Apl. | 28 | P | 16 | 21 | 0·81 | ... | 116 | 7 | 29·2 | ... |
| | ... ... ... | May | 1 | P | | 21 | 0·69 | ... | | 7 | 28·4 | ... |
| | ... ... ... | „ | 2 | P | | 21 | 0·70 | ... | | 7 | 27·6 | ... |
| | ... ... ... | „ | 4 | M | | 21 | 0·73 | ... | | 7 | 27·6 | ... |
| | ... ... ... | „ | 5 | M | | 21 | 0·68 | ... | | 7 | 28·0 | ... |
| | ... ... ... | July | 13 | M | | 21 | 0·70 | 5 | | 7 | 27·9 | ... |
| | ... ... ... | „ | 14 | M | | 21 | 0·60 | ... | | 7 | 26·1 | ... |
| 606 | 23 Scorpii τ ... ... | May | 4 | M | 16 | 27 | 21·69 | ... | 117 | 55 | 42·2 | ... |
| | ... ... ... | „ | 5 | M | | 27 | 21·37 | ... | | 55 | 41·8 | ... |
| 607 | 5784 Brisbane ... | July | 20 | R | 16 | 30 | 49·55 | 4 | 150 | 39 | 19·7 | 9·5 |
| 608 | ... ... ... | June | 2 | M | 16 | 34 | 32·73 | . | 134 | 6 | 54·5 | 7·8 |
| 609 | 40 Herculis ζ ... | May | 2 | P | 16 | 36 | 7·41 | 6 | 58 | 8 | 51·2 | ... |
| | ... ... ... | July | 14 | M | | 36 | 7·32 | ... | | 8 | 47·2 | ... |
| | ... ... ... | „ | 16 | R | | 36 | 7·20 | ... | | 8 | 50·9 | ... |
| | ... ... ... | „ | 18 | R | | 36 | 7·25 | ... | | 8 | 50·6 | ... |
| | ... ... ... | Aug. | 3 | M | | 36 | 7·35 | ... | | 8 | 52·5 | ... |
| 610 | 15952 O. A. S. ... | May | 20 | R | 16 | 39 | 18·72 | 6 | 111 | 55 | 24·7 | 9·2 |
| 611 | 8 Herculis Var. 3 ... | May | 2 | P | 16 | 45 | 39·77 | ... | 74 | 49 | 32·0 | 8·0 |
| | ... ... ... | June | 3 | M | | 45 | 39·67 | ... | | 49 | 31·1 | 7·9 |
| | ... ... ... | „ | 9 | M | | 45 | 39·60 | . | | 49 | 32·6 | 7·8 |
| 612 | ... ... ... | May | 5 | M | 16 | 48 | 49·65 | 5 | 125 | 31 | 11·1 | 8·0 |
| 613 | 27 Ophiuchi κ ... | June | 4 | M | 16 | 51 | 10·94 | . | 80 | 24 | 33·6 | ... |
| | ... ... ... | „ | 23 | R | | 51 | 11·04 | ... | | 24 | 35·0 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 613 | 27 Ophiuchi κ ... | June | 30 | R | 16 | 51 | 10·91 | .. | 80 | 24 | 33·2 | ... |
| | .. ... ... | July | 14 | M | | 51 | 11·09 | 3 | | 24 | 33·9 | ... |
| | ... .. ... | ,, | 16 | R | | 51 | 10·97 | ... | | 24 | 34·1 | ... |
| | ... ... ... | ,, | 20 | R | | 51 | 11·01 | ... | | 24 | 34·4 | ... |
| | ... ... ... | ,, | 28 | R | | 51 | 11·06 | ... | | 24 | 33·6 | ... |
| | ... ... ... | Aug. | 12 | R | | 51 | 11·00 | 5 | | 24 | 34·4 | ... |
| 614 | ... ... ... | June | 2 | M | 16 | 52 | 1·15 | ... | 122 | 48 | 45·1 | 8·2 |
| 615 | 16233 O. A. S. ... | July | 29 | R | 16 | 53 | 55·13 | 5 | 110 | 23 | 27·8 | 8·0 |
| 616 | 16288 O. A. S. ... | June | 1 | M | 16 | 56 | 24·05 | ... | 119 | 50 | 1·1 | 7·5 |
| 617 | 7926 Taylor .. ... | July | 11 | M | 16 | 59 | 41·77 | .. | 136 | 50 | 57·9 | 8·0 |
| 618 | 64 Herculis α ... | May | 1 | P | 17 | 8 | 24·17 | ... | 75 | 27 | 4·1 | .. |
| | ... ... ... | ,, | 2 | P | | 8 | 24·34 | ... | | 27 | 4·8 | .. |
| | ... . ... | June | 29 | R | | 8 | 24·01 | ... | | 27 | 4·7 | ... |
| | ... .. . | July | 1 | M | | 8 | 23·99 | ... | | 27 | 3·7 | ... |
| | ... ... ... | ,, | 18 | R | | 8 | 24·04 | ... | | 27 | 3·8 | ... |
| | ... ... ... | ,, | 23 | R | | 8 | 24·02 | ... | | 27 | 5·0 | .. |
| | ... ... ... | ,, | 28 | R | | 8 | 24·07 | ... | | 27 | 4·2 | . |
| | ... ... ... | Aug. | 3 | M | | 8 | 23·96 | ... | | 27 | 3·7 | ... |
| | . ... ... | ,, | 12 | M | | 8 | 24·05 | 2 | | 27 | 3·7 | ... |
| 619 | . ... | June | 3 | M | 17 | 8 | 56·66 | 5 | 124 | 4 | 10·4 | 8·0 |
| 620 | 42 Ophiuchi θ ... | June | 1 | M | 17 | 13 | 35·93 | .. | 114 | 51 | 32·4 | . |
| | ... ... ... | ,, | 2 | M | | 13 | 35·91 | ... | | 51 | 33·2 | .. |
| | ... . ... | July | 1 | M | | 13 | 35·83 | 5 | | 51 | 31·8 | ... |
| | .. . . | ,, | 13 | M | | 13 | 35·83 | ... | | 51 | 31·8 | . |
| | .. ... | ,, | 18 | R | | 13 | 35·86 | .. | | 51 | 32·6 | .. |
| | ... ... | ,, | 20 | R | | 13 | 35·92 | . | | 51 | 32·0 | .. |
| | ... ... ... | ,, | 23 | R | | 13 | 35·78 | .. | | 51 | 34·5 | .. |
| | .. . ... | Aug. | 3 | M | | 13 | 35·78 | ... | | 51 | 32·9 | .. |
| | ... ... ... | ,, | 7 | M | | 13 | 35·84 | 3 | | 51 | 31·9 | ... |
| 621 | 44 Ophiuchi b .. | June | 1 | M | 17 | 18 | 0·39 | ... | 114 | 2 | 44·2 | 5·0 |
| | ... . ... | ,, | 2 | M | | 18 | 0·27 | 5 | | 2 | 44·0 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | | ° | ′ | ″ | |
| 622 | 45 Ophiuchi *d* ... | May 5 | M | 17 | 18 | 36·50 | . | 119 | 41 | 21·7 | . |
| 623 | —Aræ δ ... ... | July 29 | R | 17 | 18 | 44·27 | ... | 150 | 33 | 53·2 | ... |
| 624 | ... .. .. | July 20 | R | 17 | 29 | 21·26 | ... | 125 | 14 | 36·6 | 8·7 |
| | ... .. ... | Aug. 3 | M | | 29 | 21·17 | .. | | 14 | 34·7 | 8·9 |
| 625 | 55 Ophiuchi α ... | May 1 | P | 17 | 28 | 34·65 | ... | 71 | 20 | 15·3 | .. |
| | ... ... ... | June 29 | R | | 28 | 34·43 | .. | | 20 | 16·9 | |
| | ... .. ... | July 1 | M | | 28 | 34·45 | .. | | 20 | 16·1 | |
| | ... .. ... | „ 23 | R | | 28 | 34·52 | .. | | 20 | 16·9 | — |
| | ... ... ... | „ 28 | R | | 28 | 34·47 | ... | | 20 | 16·8 | .. |
| 626 | ... ... ... | Aug. 24 | R | 17 | 34 | 30·41 | 3 | 126 | 15 | 2·1 | 10·2 |
| 627 | 58 Ophiuchi ... ... | June 29 | R | 17 | 35 | 13·26 | ... | 111 | 36 | 46·9 | .. |
| | ... ... ... | „ 30 | R | | 35 | 13·18 | ... | | 36 | 46·5 | .. |
| 628 | .. ... ... | Aug. 12 | M | 17 | 39 | 29·41 | 6 | 127 | 21 | 33·1 | 8·5 |
| 629 | ... ... ... | June 3 | M | 17 | 39 | 51·70 | 5 | 126 | 28 | 18·6 | 8·0 |
| 630 | ... ... ... | June 29 | R | 17 | 43 | 16·46 | ... | 128 | 36 | 10·7 | 7·7 |
| 631 | ... ... ... | July 20 | R | 17 | 44 | 58·68 | 4 | 128 | 47 | 40·0 | 9·0 |
| 632 | 7504 Lacaille ... | June 10 | M | 17 | 48 | 28·07 | 5 | 129 | 6 | 46·9 | 7·0 |
| 633 | ... .. .. | June 29 | R | 17 | 50 | 20·87 | 5 | 130 | 50 | 17·6 | 8·7 |
| 634 | 4 Sagittarii *b*... .. | May 5 | M | 17 | 51 | 25·71 | .. | 113 | 48 | 0·0 | 5·0 |
| | .. . ... | Aug. 24 | R | | 51 | 25·53 | . | | 47 | 59·4 | .. |
| 635 | —Sagittarii γ[1] . | June 3 | M | 17 | 56 | 16·20 | 4 | 119 | 34 | 56·7 | — |
| 636 | ... ... ... | Aug. 24 | R | 18 | 2 | 45·05 | 6 | 131 | 44 | 29·9 | 9·0 |
| | ... ... | „ 28 | M | | 2 | 45·30 | 4 | | 44 | 28·9 | 9·0 |
| 637 | ... .. .. | Aug. 27 | R | 18 | 4 | 45·03 | 4 | 120 | 43 | 36·2 | 10·5 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 638 | 13 Sagittarii $\mu^1$ .. | May | 5 | M | 18 | 5 | 34·20 | ... | 111 | 5 | 28·4 | ... |
| | ... ... .. | June | 2 | M | | 5 | 34·24 | 5 | | 5 | 27·9 | ... |
| | .. .. ... | ,, | 3 | M | | 5 | 34·18 | .. | | 5 | 27·4 | ... |
| | ... ... ... | ,, | 29 | R | | 5 | 34·18 | .. | | 5 | 28·4 | .. |
| | ... ... .. | July | 29 | R | | 5 | 34·17 | ... | | 5 | 30·7 | .. |
| | ... .. ... | Aug. | 3 | M | | 5 | 34·19 | .. | | 5 | 27·6 | . |
| | ... .. ... | ,, | 12 | M | | 5 | 34·09 | 4 | | 5 | 27·5 | . |
| | . .. . | ,, | 15 | M | | 5 | 34·13 | .. | | 5 | 28·3 | .. |
| | . .. ... | Sep. | 4 | M | | 5 | 34·14 | 5 | | 5 | 28·2 | ... |
| 639 | .. ... ... | June | 10 | M | 18 | 6 | 1·14 | ... | 122 | 25 | 10·8 | 8·0 |
| 640 | 23 Ursæ Minoris δ *s.p.* | Jan. | 9 | M | 18 | 16 | 32·55 | 3 | 3 | 23 | 46·4 | .. |
| | ... ... *s.p.* | ,, | 10 | M | | 16 | 33·23 | 3 | | 23 | 46·8 | .. |
| | ... ... *s.p.* | ,, | 19 | R | | 16 | 32·51 | 3 | | 23 | 46·5 | . |
| | ... .. *s.p.* | ,, | 20 | R | | 16 | 32·52 | 3 | | 23 | 46·5 | .. |
| | ... ... *s.p.* | Feb. | 3 | R | | 16 | 32·41 | 2 | | 23 | 47·5 | .. |
| | ... ... *s.p.* | ,, | 9 | R | | 16 | 31·89 | 3 | | 23 | 49·1 | .. |
| | . ... *s.p.* | ,, | 11 | R | | 16 | 32·02 | 3 | | 23 | 48·0 | ... |
| | ... ... *s.p.* | ,, | 17 | R | | 16 | 32·86 | 3 | | 23 | 47·3 | .. |
| | ... . *s.p.* | Mar. | 2 | R | | 16 | 31·99 | 3 | | 23 | 50·9 | .. |
| 641 | 22 Sagittarii λ ... | June | 3 | M | 18 | 19 | 30·91 | ... | 115 | 29 | 36·7 | .. |
| 642 | —Telescopii δ[1] .. | Aug. | 24 | R | 18 | 21 | 53·73 | ... | 135 | 50 | 49·0 | ... |
| 643 | ... .. .. | Aug. | 24 | R | 18 | 28 | 12·72 | 5 | 135 | 34 | 34·5 | 8·9 |
| 644 | 3 Lyræ α . | July | 2 | M | 18 | 32 | 17·92 | ... | 51 | 20 | 30·6 | ... |
| | ... ... | ,, | 3 | M | | 32 | 17·91 | .. | | 20 | 31·1 | .. |
| | .. ... . | ,, | 20 | R | | 32 | 17·92 | ... | | 20 | 31·9 | ... |
| | ... .. .. | Aug. | 12 | M | | 32 | 18·06 | ... | | 20 | 31·6 | ... |
| | ... ... ... | ,, | 15 | M | | 32 | 17·94 | ... | | 20 | 32·3 | ... |
| | ... .. .. | Sep. | 4 | M | | 32 | 17·90 | ... | | 20 | 32·4 | ... |
| 645 | .. . | July | 10 | M | 18 | 35 | 44·43 | ... | 137 | 11 | 3·4 | 7·5 |
| | ... ... ... | Aug. | 22 | R | | 35 | 44·54 | .. | | 11 | 5·1 | 9·2 |
| | ... ... ... | ,, | 24 | R | | 35 | 44·29 | ... | | 11 | 3·3 | 9·2 |
| | ... ... ... | ,, | 26 | R | | 35 | 44·58 | 4 | | 11 | 4·3 | 9·5 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 646 | 7872 Lacaille... ... | Aug. | 27 | R | 18 | 42 | 15·77 | ... | 136 | 46 | 7·0 | 6·3 |
| 647 | 7878 Lacaille... ... | Sep. | 8 | M | 18 | 42 | 48·83 | .. | 136 | 44 | 43·0 | 6·5 |
| 648 | 10 Lyræ β Var. 1 .. | July | 2 | M | 18 | 45 | 1·26 | .. | 56 | 47 | 39·7 | . |
| | ... ... ... | ,, | 3 | M | | 45 | 1·26 | ... | | 47 | 40·2 | ... |
| | ... ... .. | Aug. | 26 | R | | 45 | 1·19 | ... | | 47 | 41·1 | — |
| | ... ... ... | Sep. | 12 | M | | 45 | 1·30 | 5 | | 47 | 41·2 | .. |
| 649 | ... ... | Sep. | 15 | M | 18 | 46 | 49·55 | 4 | 137 | 44 | 59·3 | 8·0 |
| 650 | 13 Lyræ Var. 2 ... | July | 31 | R | 18 | 51 | 9·74 | 5 | 46 | 13 | 59·4 | |
| 651 | .. ... ... | Aug. | 22 | R | 18 | 51 | 58·59 | ... | 149 | 55 | 55·2 | 9·3 |
| 652 | 39 Sagittarii ο ... | June | 30 | R | 18 | 56 | 28·18 | ... | 111 | 56 | 19·1 | — |
| | ... ... .. | July | 1 | M | | 56 | 28·30 | ... | | 56 | 18·1 | .. |
| 653 | 17 Aquilæ 3 ... ... | July | 2 | M | 18 | 59 | 6·81 | ... | 76 | 20 | 14·6 | ... |
| | ... ... ... | ,, | 3 | M | | 59 | 6·57 | ... | | 20 | 16·6 | . |
| | ... ... .. | Aug. | 22 | R | | 59 | 6·71 | 4 | | 20 | 15·9 | . |
| | .. ... .. | ,, | 26 | R | | 59 | 6·69 | ... | | 20 | 16·8 | — |
| | ... .. ... | ,, | 28 | M | | 59 | 6·68 | ... | | 20 | 16·4 | — |
| | ... .. ... | Sep. | 12 | M | | 59 | 6·62 | ... | | 20 | 16·8 | — |
| | ... ... ... | ,, | 15 | M | | 59 | 6·75 | .. | | 20 | 15·2 | ... |
| 654 | 131 B. P. L. .. *s.p.* | Jan. | 24 | R | 18 | 59 | 10·74 | 3 | 3 | 28 | 5·1 | — |
| | ... .. *s.p.* | Mar. | 12 | M | | 59 | 10·15 | 2 | | 28 | 3·7 | — |
| 655 | R Aquilæ Var. 2 | July | 31 | R | 18 | 59 | 46·23 | 4 | 81 | 58 | 30·2 | 9·3 |
| 656 | 41 Sagittarii π .. | June | 30 | R | 19 | 1 | 36·73 | .. | 111 | 14 | 16·6 | — |
| | ... .. .. | Aug. | 24 | R | | 1 | 36·80 | | | 14 | 16·5 | — |
| 657 | ... . . | July | 13 | M | 19 | 3 | 1·04 | ... | 129 | 22 | 47·1 | 8·0 |
| 658 | T Sagittarii Var. 3 ... | July | 31 | R | 19 | 8 | 19·78 | 5 | 107 | 12 | 28·4 | 8·9 |
| | — — .. | Aug. | 3 | M | | 8 | 19·73 | .. | | 12 | 27·3 | .. |
| | .. — — | ,, | 12 | M | | 8 | 19·87 | 4 | | 12 | 28·0 | 8·7 |
| | ... ... .. | ,, | 24 | R | | 8 | 19·65 | 5 | | 12 | 29·3 | 9·4 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 659 | R Sagittarii Var. 1 ... | Aug. | 26 | R | 19 | 8 | 39·23 | ... | 109 | 32 | 44·1 | 8·7 |
| | ... ... .. | Sep. | 15 | M | | 8 | 39·22 | ... | | 32 | 43·4 | 9·1 |
| 660 | .. ... ... | July | 31 | R | 19 | 9 | 56·41 | 5 | 107 | 9 | 47·0 | 8·3 |
| | ... ... .. | Aug. | 3 | M | | 9 | 56·44 | 6 | | 9 | 47·5 | ... |
| | ... ... ... | " | 24 | R | | 9 | 56·43 | 5 | | 9 | 42·7 | 8·5 |
| 661 | ... .. .. | July | 10 | M | 19 | 9 | 59·69 | ... | 146 | 13 | 2·1 | 8·0 |
| 662 | 25 Aquilæ ω .. | July | 3 | M | 19 | 11 | 23·16 | ... | 78 | 38 | 57·7 | ... |
| | ... ... ... | Aug. | 22 | R | | 11 | 23·08 | ... | | 38 | 57·8 | ... |
| | ... ... .. | " | 28 | M | | 11 | 23·11 | ... | | 38 | 56·8 | ... |
| | ... ... ... | Sep. | 4 | M | | 11 | 23·12 | ... | | 38 | 57·3 | ... |
| | ... ... ... | " | 12 | M | | 11 | 23·08 | ... | | 38 | 57·5 | ... |
| 663 | 44 Sagittarii $\rho^1$ ... | June | 4 | M | 19 | 13 | 43·45 | 4 | 108 | 6 | 6·5 | ... |
| | ... ... ... | July | 29 | R | 19 | 13 | 43·46 | ... | | 6 | 7·7 | ... |
| 664 | 45 Sagittarii $\rho^2$ ... | Aug. | 24 | R | 19 | 13 | 51·24 | 5 | 108 | 33 | 32·8 | ... |
| 665 | 30 Aquilæ δ ... .. | July | 2 | M | 19 | 18 | 35·37 | ... | 87 | 9 | 19·4 | ... |
| | ... ... .. | Aug. | 27 | R | | 18 | 35·29 | ... | | 9 | 21·1 | ... |
| | ... ... ... | Sep. | 14 | M | | 18 | 35·41 | ... | | 9 | 20·3 | ... |
| | ... ... ... | " | 15 | M | | 18 | 35·23 | 2 | | 9 | 20·0 | ... |
| 666 | 8950 Taylor ... ... | July | 10 | M | 19 | 22 | 3·94 | 5 | 143 | 28 | 11·1 | 6·0 |
| 667 | 52 Sagittarii $h^2$ .. | July | 31 | R | 19 | 28 | 21·89 | ... | 115 | 10 | 57·8 | ... |
| | ... ... ... | Aug. | 24 | R | | 28 | 21·96 | ... | | 10 | 57·8 | ... |
| 668 | ... ... ... | July | 10 | M | 19 | 31 | 32·04 | 5 | 143 | 15 | 37·3 | ... |
| 669 | R Cygni Var. 3. ... | Aug. | 22 | R | 19 | 33 | 10·30 | 4 | 40 | 4 | 55·5 | 10·3 |
| 670 | 56 Sagittarii f .. | June | 3 | M | 19 | 38 | 22·08 | ... | 110 | 5 | 8·1 | ... |
| 671 | 50 Aquilæ γ ... ... | Aug. | 24 | R | 19 | 39 | 44·61 | ... | 79 | 43 | 5·8 | ... |
| | ... ... ... | " | 27 | R | | 39 | 44·65 | ... | | 43 | 6·4 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | | ° | ′ | ″ | |
| 672 | 50 Aquilæ γ ... ... | Aug. 28 | M | 19 | 39 | 41·63 | ... | 79 | 43 | 5·7 | ... |
| | ... ... ... | Sep. 4 | M | | 39 | 41·70 | .. | | 43 | 3·0 | . |
| | ... ... ... | ,, 8 | M | | 39 | 41·63 | .. | | 43 | 5·6 | ... |
| 672 | 53 Aquilæ α ... .. | Aug. 24 | R | 19 | 44 | 5·86 | 5 | 81 | 29 | 28·2 | .. |
| | ... .. .. | Sep. 14 | M | | 44 | 5·86 | ... | | 29 | 27·9 | ... |
| 673 | —Cygni χ Var. 2 .. | July 31 | R | 19 | 45 | 17·88 | 5 | 57 | 25 | 51·3 | 5·7 |
| 674 | 55 Aquilæ η ... .. | Aug. 22 | R | 19 | 45 | 29·50 | .. | 89 | 20 | 37·1 | 5·0 |
| | ... ... .. | ,, 28 | M | | 45 | 29·49 | .. | | 20 | 36·0 | 5·0 |
| 675 | 60 Aquilæ β ... ... | Aug. 24 | R | 19 | 48 | 31·90 | ... | 83 | 55 | 58·9 | ... |
| | ... ... .. | Sep. 8 | M | | 48 | 31·92 | ... | | 55 | 58·5 | ... |
| | ... ... ... | ,, 12 | M | | 48 | 31·88 | .. | | 56 | 0·1 | ... |
| | ... ... ... | ,, 14 | M | | 48 | 34·85 | ... | | 55 | 59·7 | . |
| | ... .. ... | ,, 15 | M | | 48 | 31·87 | ... | | 55 | 58·8 | . |
| 676 | ... ... ... | July 13 | M | 19 | 49 | 28·86 | 5 | 145 | 56 | 59·3 | 8·5 |
| 677 | ... ... ... | Aug. 22 | R | 10 | 52 | 55·25 | 5 | 147 | 11 | 2·4 | 9·2 |
| 678 | —Ursæ Minoris λ s.p. | Feb. 4 | R | 20 | 1 | 4·48 | 3 | 1 | 6 | 4·3 | ... |
| | ... .. s.p. | Mar. 3 | M | | 1 | 3·85 | 3 | | 6 | 4·9 | ... |
| | ... ... s.p. | ,, 5 | M | | 1 | 3·38 | 3 | | 6 | 3·7 | ... |
| 679 | R Capricorni Var. 1. | Aug. 27 | R | 20 | 3 | 37·20 | 5 | 104 | 40 | 11·7 | 10·0 |
| | ... . ... | Oct. 6 | M | | 3 | 37·07 | ... | | 40 | 12·4 | 9·8 |
| 680 | ... ... .. | July 13 | M | 20 | 4 | 6·47 | ... | 147 | 14 | 43·1 | 8·2 |
| 681 | ... ... ... | Sep. 15 | M | 20 | 7 | 35·36 | 5 | 81 | 22 | 35·0 | 9·2 |
| 682 | R Sagittæ Var. 1 .. | July 31 | R | 20 | 7 | 49·53 | 5 | 73 | 41 | 11·0 | 9·7 |
| | ... ... ... | Oct. 5 | M | | 7 | 49·47 | ... | | 41 | 10·6 | 9·7 |
| 683 | 5 Capricorni α¹ ... | July 1 | M | 20 | 10 | 3·01 | .. | 102 | 55 | 43·7 | ... |
| 164 | 6 Capricorni α² ... | June 4 | M | 20 | 10 | 27·12 | .. | 102 | 58 | 0·2 | ... |
| | ... ... ... | July 29 | R | | 10 | 26·97 | ... | | 58 | 3·2 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 684 | 6 Capricorni α² ... | Aug. | 28 | M | 20 | 10 | 26·93 | ... | 102 | 58 | 0·6 | ... |
| | ... ... ... | Sep. | 8 | M | | 10 | 27·02 | ... | | 58 | 0·9 | ... |
| | ... ... ... | " | 14 | M | | 10 | 26·97 | ... | | 58 | 1·2 | ... |
| | ... ... ... | " | 18 | R | | 10 | 26·94 | ... | | 58 | 0·8 | ... |
| | ... ... ... | " | 23 | R | | 10 | 26·90 | ... | | 58 | 0·8 | ... |
| 685 | 34 Cygni ... ... | Aug. | 22 | R | 20 | 12 | 44·12 | 3 | 52 | 23 | 30·7 | 6·0 |
| | ... ... ... | Oct. | 2 | M | | 12 | 44·52 | ... | | 23 | 31·4 | 5·9 |
| | ... ... ... | " | 6 | M | | 12 | 44·41 | ... | | 23 | 28·9 | 5·9 |
| 686 | — Pavonis α... .. | July | 29 | R | 20 | 14 | 47·13 | 4 | 147 | 10 | 14·4 | ... |
| 687 | 8441 Lacaille ... | Oct. | 7 | M | 20 | 18 | 9·46 | ... | 121 | 7 | 9·6 | 8·6 |
| 688 | 11 Capricorni ρ ... | June | 4 | M | 20 | 21 | 2·53 | ... | 108 | 15 | 49·6 | ... |
| | ... ... .. | July | 1 | M | | 21 | 2·45 | ... | | 15 | 49·8 | ... |
| | ... ... ... | " | 31 | R | | 21 | 2·49 | 5 | | 15 | 50·8 | ... |
| | ... ... ... | Aug. | 18 | R | | 21 | 2·51 | ... | | 15 | 51·4 | ... |
| | ... ... .. | " | 27 | R | | 21 | 2·53 | ... | | 15 | 50·0 | ... |
| | ... ... ... | Sep. | 15 | M | | 21 | 2·46 | 5 | | 15 | 50·0 | ... |
| | ... ... ... | " | 18 | R | | 21 | 2·50 | 6 | | 15 | 49·5 | ... |
| | ... ... .. | " | 23 | R | | 21 | 2·48 | ... | | 15 | 51·2 | ... |
| | ... ... .. | Oct. | 1 | M | | 21 | 2·37 | ... | | 15 | 50·3 | ... |
| | ... ... .. | " | 8 | M | | 21 | 2·56 | ... | | 15 | 50·8 | ... |
| | ... ... .. | " | 9 | M | | 21 | 2·47 | ... | | 15 | 49·5 | ... |
| | ... ... ... | " | 10 | M | | 21 | 2·50 | ... | | 15 | 49·9 | ... |
| 689 | ... ... .. | Oct. | 7 | M | 20 | 27 | 46·43 | ... | 143 | 16 | 38·0 | 8·8 |
| 690 | 24 Cephei (Hev.) .. | Oct. | 8 | M | 20 | 28 | 56·11 | 2 | 1 | 17 | 20·4 | 7·9 |
| 691 | ... ... .. | Oct. | 2 | M | 20 | 29 | 40·82 | 5 | 143 | 52 | 14·6 | 9·0 |
| 692 | 143 R. P. I. .. .. | Oct. | 6 | M | 20 | 29 | 50·61 | 5 | 5 | 18 | 42·2 | ... |
| 693 | ... ... . | Oct. | 10 | M | 20 | 30 | 47·79 | ... | 149 | 55 | 34·7 | 8·1 |
| 694 | 8 Capricorni Var. 2 .. | Aug. | 22 | R | 20 | 33 | 53·78 | ... | 109 | 32 | 34·9 | 9·0 |
| | ... ... .. | Sep. | 14 | M | | 33 | 53·92 | ... | | 32 | 33·6 | 9·3 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 695 | ... ... ... | July | 31 | R | 20 | 36 | 44·82 | ... | 73 | 23 | 17·5 | 9·2 |
| | ... ... ... | Sep. | 18 | R | | 36 | 44·84 | ... | | 23 | 16·9 | 8·8 |
| 696 | 50 Cygni α ... ... | July | 29 | R | 20 | 36 | 45·64 | ... | 45 | 12 | 29·3 | ... |
| 697 | S Delphini Var. 2 ... | Oct. | 9 | M | 20 | 36 | 46·06 | ... | 73 | 24 | 9·9 | 8·9 |
| 698 | ... ... ... | Oct. | 7 | M | 20 | 38 | 4·22 | ... | 143 | 3 | 29·6 | 9·3 |
| 699 | 2 Aquarii ε ... ... | Aug. | 27 | R | 20 | 40 | 15·30 | ... | 100 | 59 | 42·4 | ... |
| 700 | 8571 Lacaille .. | Oct. | 10 | M | 20 | 42 | 48·35 | ... | 150 | 13 | 10·8 | 7·7 |
| 701 | 9633 Taylor ... ... | July | 2 | M | 20 | 44 | 30·80 | 3 | 101 | 56 | 0·6 | 7·0 |
| 702 | 6 Aquarii μ ... ... | Aug. | 27 | R | 20 | 45 | 15·65 | ... | 99 | 29 | 42·9 | ... |
| 703 | ... ... ... | Oct. | 8 | M | 20 | 47 | 35·56 | ... | 149 | 2 | 5·8 | 8·9 |
| 704 | 32 Vulpeculæ ... | Aug. | 22 | R | 20 | 48 | 43·20 | 5 | 62 | 27 | 39·6 | ... |
| | ... ... ... | Sep. | 18 | R | | 48 | 43·21 | ... | | 27 | 44·2 | .. |
| 705 | ... ... ... | Oct. | 7 | M | 20 | 53 | 53·28 | 4 | 142 | 59 | 27·0 | 9·4 |
| 706 | R Vulpeculæ Var 2... | Aug. | 27 | R | 20 | 58 | 23·38 | 3 | 66 | 42 | 55·8 | 10·5 |
| | ... ... ... | Sep. | 26 | R | | 58 | 23·28 | 5 | | 42 | 54·0 | 9·5 |
| 707 | ... ... .. | Oct. | 10 | M | 20 | 58 | 30·79 | ... | 148 | 52 | 55·0 | 9·8 |
| 708 | 9772 Taylor ... ... | Sep. | 14 | M | 21 | 0 | 23·07 | .. | 115 | 7 | 32·1 | 7·3 |
| 709 | 61 Cygni (1st) ... | Aug. | 18 | R | 21 | 0 | 15·44 | .. | 51 | 55 | 22·8 | ... |
| 710 | 13 Aquarii ν .. ... | July | 2 | M | 21 | 2 | 7·04 | ... | 101 | 55 | 26·6 | ... |
| | .. .. .. | " | 3 | M | | 2 | 7·38 | 4 | | 55 | 28·1 | ... |
| 711 | 64 Cygni 3 ... ... | Aug. | 18 | R | 21 | 7 | 6·28 | ... | 60 | 20 | 1·7 | ... |
| | ... .. ... | Sep. | 30 | R | | 7 | 6·23 | ... | | 20 | 1·9 | .. |
| | ... ... ... | Oct. | 1 | M | | 7 | 6·32 | ... | | 20 | 1·5 | .. |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ' | " | |
| 711 | 61 Cygni 3 ... .. | Oct. | 3 | M | 21 | 7 | 6·36 | ... | 60 | 20 | 1·5 | ... |
| | ... ... ... | ,, | 5 | M | | 7 | 6·30 | ... | | 20 | 0·8 | ... |
| | ... ... ... | ,, | 23 | R | | 7 | 6·35 | ... | | 20 | 2·0 | ... |
| 712 | 8748 Lacaille ... | Sep. | 14 | M | 21 | 9 | 43·32 | 4 | 145 | 7 | 56·0 | 8·9 |
| 713 | 22 Aquarii β ... ... | July | 31 | R | 21 | 24 | 20·59 | ... | 96 | 10 | 19·9 | ... |
| | ... ... ... | Sep. | 23 | R | | 24 | 20·58 | ... | | 10 | 20·3 | ... |
| | ... ... ... | ,, | 28 | R | | 24 | 20·71 | ... | | 10 | 20·9 | ... |
| | ... ... ... | ,, | 30 | R | | 24 | 20·68 | 5 | | 10 | 20·0 | ... |
| | ... ... ... | Oct. | 1 | M | | 24 | 20·73 | ... | | 10 | 20·0 | ... |
| | ... ... ... | ,, | 5 | M | | 24 | 20·55 | ... | | 10 | 19·8 | ... |
| | ... ... ... | ,, | 7 | M | | 24 | 20·68 | ... | | 10 | 19·5 | ... |
| | ... ... ... | ,, | 8 | M | | 24 | 20·64 | ... | | 10 | 19·9 | ... |
| | ... ... ... | ,, | 9 | M | | 24 | 20·62 | ... | | 10 | 19·8 | ... |
| | ... ... ... | ,, | 10 | M | | 24 | 20·65 | ... | | 10 | 20·5 | ... |
| | ... ... ... | ,, | 23 | R | | 24 | 20·70 | ... | | 10 | 20·7 | ... |
| 714 | ... ... ... | Sep. | 14 | M | 21 | 25 | 45·04 | 5 | 140 | 23 | 42·6 | 9·0 |
| 715 | 23 Aquarii 1 ... ... | July | 31 | R | 21 | 30 | 27·30 | ... | 98 | 28 | 1·7 | ... |
| | ... ... ... | Sep. | 23 | R | | 30 | 27·29 | ... | | 28 | 1·2 | ... |
| 716 | 10032 Taylor... ... | Oct. | 6 | M | 21 | 30 | 37·36 | 5 | 142 | 58 | 30·5 | 6·3 |
| 717 | 10065 Taylor .. ... | Oct. | 8 | M | 21 | 34 | 23·88 | 4 | 145 | 7 | 22·2 | 6·2 |
| 718 | 8 Pegasi ε ... .. | Sep. | 26 | R | 21 | 37 | 27·42 | .. | 80 | 45 | 7·1 | ... |
| | ... ... .. | ,, | 28 | R | | 37 | 27·37 | 3 | | 45 | 6·6 | .. |
| | ... ... .. | Oct. | 3 | M | | 37 | 27·40 | ... | | 45 | 6·1 | ... |
| | ... ... .. | ,, | 6 | M | | 37 | 27·38 | ... | | 45 | 5·8 | ... |
| | ... ... ... | ,, | 7 | M | | 37 | 27·36 | — | | 45 | 6·2 | ... |
| | ... ... ... | ,, | 10 | M | | 37 | 27·36 | ... | | 45 | 5·6 | .. |
| 719 | — Cephei μ Var. 1 .. | Aug. | 24 | R | 21 | 39 | 18·68 | ... | 31 | 50 | 51·1 | 5·5 |
| | ... ... .. | Oct. | 5 | M | | 39 | 18·97 | .. | | 50 | 52·5 | 5·2 |
| | ... ... .. | ,, | 9 | M | | 39 | 18·94 | ... | | 50 | 51·0 | 5·5 |
| 720 | 16 Pegasi .. | Sep. | 26 | R | 21 | 46 | 49·75 | ... | 64 | 43 | 7·0 | ... |
| | ... ... | ,, | 28 | R | | 46 | 49·70 | ... | | 43 | 6·9 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 720 | 16 Pegasi ... | ... | Sep. | 30 | R | 21 | 46 | 49·73 | ... | 64 | 43 | 7·5 | ... |
| | ... ... | ... | Oct. | 3 | M | | 46 | 49·76 | ... | | 43 | 8·4 | ... |
| | ... ... | ... | „ | 6 | M | | 46 | 49·80 | ... | | 43 | 6·1 | ... |
| | ... ... | ... | „ | 7 | M | | 46 | 49·73 | ... | | 43 | 8·2 | ... |
| | ... ... | ... | „ | 8 | M | | 46 | 49·67 | ... | | 43 | 7·0 | ... |
| | ... ... | ... | „ | 23 | R | | 46 | 49·67 | ... | | 43 | 7·9 | ... |
| 721 | 10190 Taylor... | ... | Oct. | 14 | M | 21 | 51 | 1·58 | ... | 146 | 32 | 12·3 | 6·0 |
| 722 | ... ... | ... | Aug. | 24 | R | 21 | 53 | 45·64 | 5 | 150 | 49 | 33·5 | 9·7 |
| | ... ... | ... | Nov. | 2 | M | | 53 | 45·94 | 3 | | 49 | 34·0 | 9·6 |
| 723 | ... ... | ... | Sep. | 14 | M | 21 | 58 | 8·61 | 1 | 136 | 2 | 51·4 | 9·3 |
| 724 | 34 Aquarii α ... | ... | Sep. | 30 | R | 21 | 58 | 44·73 | ... | 90 | 59 | 3·9 | ... |
| | ... ... | ... | Oct. | 1 | M | | 58 | 44·58 | ... | | 59 | 3·1 | ... |
| | ... ... | ... | „ | 3 | M | | 58 | 44·71 | ... | | 59 | 4·3 | ... |
| | ... ... | ... | „ | 5 | M | | 58 | 44·71 | ... | | 59 | 4·0 | ... |
| | ... ... | ... | „ | 14 | M | | 58 | 44·78 | ... | | 59 | 3·7 | .. |
| 725 | ... ... | ... | Oct. | 5 | M | 22 | 5 | 21·38 | .. | 101 | 6 | 5·1 | 9·6 |
| | ... ... | ... | „ | 6 | M | | 5 | 21·04 | 3 | | 6 | 5·7 | 9·4 |
| 726 | ... ... | ... | Oct. | 14 | M | 22 | 9 | 2·20 | ... | 98 | 22 | 21·4 | 7·9 |
| 727 | ... ... | ... | Oct. | 7 | M | 22 | 9 | 3·86 | 5 | 146 | 27 | 35·2 | 9·0 |
| 728 | 43 Aquarii θ... | ... | Aug. | 27 | R | 22 | 9 | 36·11 | ... | 98 | 27 | 51·3 | ... |
| 729 | 48 Aquarii γ... | .. | July | 31 | R | 22 | 14 | 34·62 | ... | 92 | 4 | 36·0 | .. |
| | .. ... | ... | Aug. | 27 | R | | 14 | 34·72 | 6 | | 4 | 36·0 | ... |
| 730 | ... ... | ... | Oct. | 17 | R | 22 | 15 | 17·57 | 5 | 82 | 47 | 40·5 | ... |
| 731 | ... ... | ... | Oct. | 6 | M | 22 | 18 | 46·90 | 5 | 140 | 46 | 3·8 | 9·6 |
| 732 | 150 R. P. L .. | s.p. | Feb. | 2 | S | 22 | 23 | 41·72 | 3 | 4 | 34 | 56·7 | .. |
| | ... ... | s.p. | Mar. | 9 | M | | 23 | 42·63 | 3 | | 35 | 0·1 | .. |
| | ... ... | s.p. | „ | 18 | M | | 23 | 42·54 | 3 | | 35 | 0·3 | |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | | ° | ′ | ″ | |
| 732 | 150 R. P. L. ... s.p. | Apl. 30 | M | 22 | 23 | 42·30 | 3 | 4 | 34 | 59·6 | ... |
| | ... ... ... | Nov. 2 | M | | 23 | 42·04 | 3 | | 35 | 2·3 | ... |
| | ... ... ... | ,, 4 | M | | 23 | 41·06 | 3 | | 35 | 2·4 | ... |
| 733 | 21 Cephei ζ ... ... | July 31 | R | 22 | 24 | 5·40 | 5 | 32 | 17 | 8·7 | 5·7 |
| | ... ... ... | Sep. 8 | M | | 24 | 5·23 | 3 | | 17 | 10·0 | 5·5 |
| | ... ... ... | Oct. 5 | M | | 24 | 5·34 | ... | | 17 | 9·3 | 5·5 |
| | ... ... ... | ,, 14 | M | | 24 | 5·54 | ... | | 17 | 10·3 | 5·6 |
| 734 | ... ... ... | Oct. 7 | M | 22 | 24 | 36·10 | 5 | 146 | 50 | 51·5 | 9·8 |
| 735 | ... ... .. | Oct. 6 | M | 22 | 25 | 48·37 | ... | 141 | 30 | 31·5 | 8·0 |
| 736 | 62 Aquarii η ... | July 31 | R | 22 | 28 | 18·50 | ... | 90 | 49 | 23·4 | ... |
| | ... ... ... | Sep. 25 | R | | 28 | 18·97 | 5 | | 49 | 23·0 | ... |
| | ... ... ... | Oct. 2 | M | | 28 | 18·81 | ... | | 49 | 22·4 | ... |
| | ... ... ... | ,, 9 | M | | 28 | 18·82 | ... | | 49 | 21·7 | ... |
| | ... ... ... | ,, 13 | M | | 28 | 19·05 | ... | | 49 | 21·9 | ... |
| | ... ... ... | ,, 14 | M | | 28 | 18·96 | ... | | 49 | 23·4 | ... |
| | ... ... ... | ,, 16 | R | | 28 | 18·90 | ... | | 49 | 22·5 | ... |
| | ... ... ... | ,, 17 | R | | 28 | 18·91 | ... | | 49 | 21·4 | ... |
| | ... ... ... | Nov. 3 | M | | 28 | 18·83 | ... | | 49 | 23·5 | ... |
| 737 | ... ... ... | Oct. 8 | M | 22 | 32 | 3·16 | ... | 148 | 8 | 5·0 | 6·0 |
| 738 | 42 Pegasi ζ ... .. | Oct. 5 | M | 22 | 34 | 37·76 | ... | 79 | 52 | 58·3 | ... |
| | ... ... ... | ,, 10 | M | | 34 | 37·60 | ... | | 52 | 58·3 | ... |
| | ... ... ... | ,, 17 | R | | 34 | 37·74 | ... | | 52 | 59·1 | ... |
| | ... ... ... | Nov. 4 | M | | 34 | 37·59 | ... | | 53 | 0·4 | ... |
| 739 | ... ... .. | Oct. 6 | M | 22 | 37 | 35·40 | 5 | 145 | 46 | 57·5 | 6·6 |
| 740 | XXII. 844 W. B. E.... | Sep. 26 | R | 33 | 40 | 31·06 | ... | 87 | 48 | 59·4 | 8·9 |
| 741 | ... . ... | Oct. 16 | R | 22 | 40 | 48·26 | ... | 142 | 38 | 21·7 | 9·1 |
| | ... . .. | Nov. 4 | M | | 40 | 48·65 | 3 | | 38 | 19·5 | 9·1 |
| 742 | .. ... .. | Oct. 7 | M | 22 | 44 | 39·06 | ... | 145 | 33 | 18·7 | 10·0 |
| | ... ... .. | ,, 27 | R | | 44 | 40·19 | 5 | | 33 | 20·5 | 9·3 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | | ° | ′ | ″ | |
| 743 | ... ... .. | Oct. 8 | M | 22 | 44 | 46·67 | ... | 148 | 34 | 50·3 | 7·8 |
| | ... ... ... | Nov. 11 | M | | 44 | 46·63 | ... | | 34 | 51·6 | 8·0 |
| 744 | S Aquarii Var. 2 ... | Oct. 17 | R | 22 | 49 | 45·50 | ... | 111 | 4 | 27·6 | 8·9 |
| | ... ... ... | „ 27 | R | | 49 | 45·65 | ... | | 4 | 25·7 | 8·7 |
| 745 | 24 Piscis Australis α. | Oct. 6 | M | 22 | 50 | 4·32 | ... | 120 | 20 | 50·7 | ... |
| | ... ... ... | „ 7 | M | | 50 | 4·38 | ... | | 20 | 51·0 | ... |
| | ... ... ... | „ 9 | M | | 50 | 4·33 | ... | | 20 | 51·7 | ... |
| | ... .. ... | „ 14 | M | | 50 | 4·38 | ... | | 20 | 52·6 | ... |
| | ... .. .. | „ 16 | R | | 50 | 4·38 | ... | | 20 | 51·5 | ... |
| | ... ... .. | Nov. 6 | M | | 50 | 4·42 | ... | | 20 | 52·8 | ... |
| | ... ... ... | „ 13 | M | | 50 | 4·44 | ... | | 20 | 51·6 | ... |
| | ... ... ... | „ 14 | M | | 50 | 4·46 | ... | | 20 | 51·9 | ... |
| 746 | ... ... .. | Oct. 10 | M | 22 | 51 | 22·53 | ... | 151 | 33 | 39·0 | 9·2 |
| 747 | ... ... ... | Oct. 13 | M | 22 | 51 | 47·53 | ... | 85 | 26 | 50·2 | 9·3 |
| 748 | 9353 Lacaille ... | Sep. 8 | M | 22 | 56 | 33·24 | ... | 144 | 41 | 54·1 | 6·0 |
| 749 | ... ... ... | Nov. 7 | M | 22 | 57 | 7·80 | ... | 149 | 38 | 17·9 | 9·0 |
| 750 | 53 Pegasi β Var. 1 .. | Oct. 5 | M | 22 | 57 | 8·24 | 5 | 62 | 39 | 36·2 | .. |
| 751 | 54 Pegasi α ... ... | Oct. 8 | M | 22 | 57 | 56·18 | ... | 75 | 31 | 54·3 | ... |
| | ... ... .. | „ 16 | R | | 57 | 56·23 | ... | | 31 | 53·7 | ... |
| | . ... ... | „ 24 | R | | 57 | 56·31 | ... | | 31 | 54·3 | ... |
| | ... ... ... | Nov. 11 | M | | 57 | 56·24 | 5 | | 31 | 54·4 | .. |
| 752 | ... ... ... | Oct. 9 | M | 22 | 59 | 16·44 | ... | 150 | 22 | 26·9 | 9·8 |
| 753 | 9377 Lacaille ... | Oct. 10 | M | 23 | 2 | 8·81 | ... | 151 | 18 | 22·3 | 6·8 |
| | ... ... .. | Nov. 13 | M | | 2 | 8·60 | ... | | 18 | 22·3 | 6·2 |
| 754 | 90 Aquarii φ .. ... | Aug. 29 | R | 23 | 7 | 13·63 | 5 | 96 | 47 | 14·0 | .. |
| 755 | 9405 Lacaille ... | Oct. 9 | M | 23 | 7 | 22·68 | ... | 150 | 26 | 28·5 | 8·3 |
| | ... .. .. | „ 26 | R | | 7 | 22·76 | ... | | 26 | 28·1 | 8·0 |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 755 | 9405 Lacaille ... | Oct. | 27 | R | 23 | 7 | 22·78 | 5 | 150 | 26 | 24·5 | 7·5 |
| | ... ... ... | ,, | 30 | R | | 7 | 22·85 | 5 | | 26 | 23·4 | 8·8 |
| 756 | 6 Piscium γ ... ... | Oct. | 13 | M | 23 | 10 | 3·69 | ... | 87 | 27 | 57·4 | ... |
| | ... ... ... | ,, | 14 | M | | 10 | 3·69 | ... | | 27 | 59·2 | ... |
| | ... ... ... | ,, | 16 | R | | 10 | 3·77 | ... | | 27 | 57·5 | ... |
| | ... ... ... | ,, | 17 | R | | 10 | 3·70 | ... | | 27 | 57·1 | ... |
| | ... ... .. | Nov. | 3 | M | | 10 | 3·84 | ... | | 27 | 56·6 | ... |
| | ... ... ... | ,, | 5 | M | | 10 | 3·76 | ... | | 27 | 58·3 | ... |
| | ... ... ... | ,, | 11 | M | | 10 | 3·82 | ... | | 27 | 57·4 | ... |
| | ... ... ... | ,, | 13 | M | | 10 | 3·75 | ... | | 27 | 57·7 | ... |
| 757 | ... ... ... | Oct. | 10 | M | | 11 | 2·03 | ... | 151 | 16 | 3·7 | 9·8 |
| 758 | ... ... ... | Nov. | 14 | M | 23 | 11 | 15·10 | 5 | 136 | 54 | 41·3 | 8·6 |
| 759 | ... ... ... | Sep. | 8 | M | 23 | 12 | 4·13 | ... | 137 | 4 | 14·6 | 8·5 |
| 760 | 96 Aquarii ... .. | Aug. | 28 | M | 23 | 12 | 17·05 | ... | 95 | 52 | 21·0 | 5·5 |
| 761 | 4040 Groombridge ... | Oct. | 27 | R | 23 | 12 | 55·84 | 2 | 17 | 3 | 35·0 | 7·0 |
| 762 | 10748 Taylor ... | Oct. | 7 | M | 23 | 17 | 29·48 | 5 | 147 | 36 | 2·7 | 5·9 |
| | ... ... .. | Nov. | 6 | M | | 17 | 29·44 | ... | | 36 | 3·3 | 6·0 |
| | ... ... .. | ,, | 13 | M | | 17 | 29·36 | ... | | 36 | 3·3 | 5·9 |
| 763 | ... ... ... | Oct. | 8 | M | 23 | 19 | 38·74 | ... | 151 | 38 | 24·2 | 9·9 |
| 764 | 8 Piscium κ ... ... | Sep. | 25 | R | 23 | 19 | 54·50 | ... | 89 | 29 | 39·6 | ... |
| | ... ... ... | ,, | 26 | R | | 19 | 54·55 | ... | | 29 | 39·0 | ... |
| | ... ... ... | Oct. | 2 | M | | 19 | 54·68 | ... | | 29 | 40·0 | ... |
| | ... ... ... | ,, | 13 | M | | 19 | 54·48 | ... | | 29 | 39·9 | ... |
| | ... ... ... | ,, | 17 | R | | 19 | 54·56 | ... | | 29 | 38·3 | ... |
| | ... ... ... | ,, | 24 | R | | 19 | 54·50 | ... | | 29 | 40·4 | ... |
| | ... ... ... | ,, | 26 | R | | 19 | 54·50 | ... | | 29 | 39·3 | ... |
| | ... ... ... | ,, | 31 | R | | 19 | 54·52 | ... | | 29 | 38·8 | ... |
| | ... ... ... | Nov. | 3 | M | | 19 | 54·52 | ... | | 29 | 39·4 | ... |
| | ... ... ... | ,, | 4 | M | | 19 | 54·64 | ... | | 29 | 39·8 | ... |
| | ... ... .. | ,, | 5 | M | | 19 | 54·59 | ... | | 29 | 38·9 | ... |
| | ... ... .. | ,, | 20 | R | | 19 | 54·53 | ... | | 29 | 39·6 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 765 | .. ... .. | Sep. | 8 | M | 23 | 20 | 59·71 | ... | 137 | 28 | 3·9 | 9·5 |
| | ... ... ... | Oct. | 30 | R | | 20 | 59·97 | ... | | 28 | 5·0 | 9·0 |
| 766 | ... ... ... | Nov. | 7 | M | 23 | 23 | 33·84 | ... | 148 | 57 | 55·0 | 8·8 |
| 767 | 10804 Taylor ... | Oct. | 7 | M | 23 | 27 | 26·26 | 3 | 147 | 34 | 54·1 | 6·4 |
| | ... ... ... | ,, | 27 | R | | 27 | 26·36 | ... | | 34 | 54·7 | 6·7 |
| | ... ... ... | Nov. | 4 | M | | 27 | 26·66 | ... | | 34 | 52·4 | 6·0 |
| 768 | ... ... ... | Oct. | 6 | M | 23 | 27 | 42·50 | 5 | 148 | 15 | 5·2 | 8·8 |
| 769 | 158 R. P. L. ... *s.p.* | Mar. | 20 | R | 23 | 27 | 49·96 | 4 | 3 | 26 | 54·7 | ... |
| | ... ... *s.p.* | ,, | 24 | R | | 27 | 49·83 | 3 | | 26 | 52·1 | ... |
| | ... ... *s.p.* | ,, | 26 | R | | 27 | 49·78 | 3 | | 26 | 55·9 | ... |
| | ... .. *s.p.* | ,, | 28 | R | | 27 | 49·72 | 3 | | 26 | 53·3 | ... |
| | ... ... *s.p.* | ,, | 31 | R | | 27 | 49·62 | 3 | | 26 | 55·6 | .. |
| | ... .. *s.p.* | Apl. | 23 | R | | 27 | 49·91 | 3 | | 26 | 53·3 | ... |
| | ... ... *s.p.* | May | 2 | M | | 27 | 49·68 | 3 | | 26 | 56·8 | ... |
| | ... .. .. | Sep. | 28 | R | | 27 | 49·82 | 3 | | 26 | 53·7 | .. |
| | ... ... .. | Oct. | 17 | R | | 27 | 50·29 | 3 | | 26 | 55·1 | ... |
| | ... ... .. | ,, | 31 | R | | 27 | 49·79 | 3 | | 26 | 54·8 | ... |
| | ... .. ... | Nov. | 9 | M | | 27 | 50·04 | 3 | | 26 | 54·4 | ... |
| 770 | ... .. ... | Sep. | 8 | M | 23 | 29 | 51·04 | 6 | 137 | 20 | 27·5 | 10.0 |
| | ... ... .. | Oct. | 30 | R | | 29 | 51·35 | ... | | 20 | 23·7 | 9·0 |
| 771 | .. . .. | Nov. | 7 | M | 23 | 30 | 21·40 | 5 | 148 | 57 | 0·4 | 8·4 |
| 772 | 17 Piscium . | Aug. | 29 | R | 23 | 32 | 54·22 | ... | 85 | 6 | 57·6 | ... |
| | . . . | Sep. | 25 | R | | 32 | 54·26 | ... | | 6 | 58·1 | ... |
| | ... . | ,, | 26 | R | | 32 | 54·28 | ... | | 6 | 57·4 | ... |
| | .. . | Oct. | 2 | M | | 32 | 54·32 | ... | | 6 | 57·2 | ... |
| | ... . | ,, | 26 | R | | 32 | 54·25 | ... | | 6 | 59·4 | ... |
| | ... . | ,, | 27 | R | | 32 | 54·26 | 5 | | 6 | 58·7 | ... |
| | ... ... ... | Nov. | 2 | M | | 32 | 54·22 | ... | | 6 | 59·2 | ... |
| | ... . .. | ,, | 3 | M | | 32 | 54·30 | ... | | 6 | 58·7 | ... |
| | ... ... .. | ,, | 5 | M | | 32 | 54·25 | ... | | 6 | 57·8 | ... |
| | ... ... ... | ,, | 11 | M | | 32 | 54·31 | ... | | 6 | 57·9 | ... |
| | ... ... ... | ,, | 20 | R | | 32 | 54·27 | ... | | 6 | 58·2 | ... |

*Separate Results of Madras Meridian Circle Observations in 1863.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1863. | | | No. of Wires. | Mean Polar Distance. 1863. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 773 | ... ... ... | Nov. | 4 | M | 23 | 34 | 17·16 | 5 | 147 | 27 | 44·8 | 9·2 |
| 774 | ... ... ... | Sep. | 28 | R | 23 | 36 | 43·67 | 5 | 106 | 2 | 41·7 | 9·2 |
| 775 | — Sculptoris δ ... | Aug. | 29 | R | 23 | 41 | 47·10 | ... | 118 | 53 | 15·5 | |
| | ... ... ... | Oct. | 2 | M | | 41 | 47·00 | ... | | 53 | 16·7 | ... |
| | ... ... ... | ,, | 13 | M | | 41 | 47·09 | ... | | 53 | 17·2 | ... |
| | ... ... ... | ,, | 26 | R | | 41 | 47·17 | ... | | 53 | 16·7 | ... |
| | ... ... ... | ,, | 27 | R | | 41 | 47·23 | ... | | 53 | 16·4 | ... |
| | ... ... ... | ,, | 30 | R | | 41 | 46·97 | ... | | 53 | 15·6 | ... |
| | ... ... ... | ,, | 31 | R | | 41 | 47·08 | ... | | 53 | 16·3 | ... |
| | ... ... ... | Nov. | 2 | M | | 41 | 47·19 | ... | | 53 | 17·5 | ... |
| | ... ... ... | ,, | 4 | M | | 41 | 47·04 | ... | | 53 | 16·7 | ... |
| | ... ... ... | ,, | 5 | M | | 41 | 47·07 | ... | | 53 | 16·2 | ... |
| | ... ... ... | ,, | 6 | M | | 41 | 47·09 | ... | | 53 | 17·8 | ... |
| | ... .. .. | ,, | 7 | M | | 41 | 47·04 | ... | | 55 | 16·1 | ... |
| | ... ... .. | ,, | 9 | M | | 41 | 47·14 | ... | | 53 | 16·0 | ... |
| 776 | ... ... ... | Oct. | 10 | M | 23 | 42 | 0·32 | ... | 150 | 50 | 19·7 | 9·2 |
| | ... ... ... | Nov. | 20 | R | | 42 | 0·21 | 5 | | 50 | 17·9 | 8·0 |
| 777 | 9638 Lacaille ... | Oct. | 8 | M | 23 | 46 | 58·39 | ... | 150 | 18 | 19·0 | 7·7 |
| | ... ... ... | Nov. | 11 | M | | 46 | 58·35 | ... | | 18 | 20·0 | 7·8 |
| 778 | R Cassiopeæ Var. 3... | Sep. | 28 | R | 23 | 51 | 27·44 | 5 | 39 | 22 | 30·2 | 9·5 |
| 779 | ... ... ... | Nov. | 13 | M | 23 | 51 | 55·83 | 5 | 143 | 16 | 18·8 | 9·4 |
| 780 | 28 Piscium ω ... | Aug. | 29 | R | 23 | 52 | 16·69 | ... | 83 | 53 | 42·3 | ... |
| | ... ... ... | Oct. | 27 | R | | 52 | 16·61 | ... | | 53 | 43·3 | ... |
| | ... ... .. | ,, | 30 | R | | 52 | 16·60 | ... | | 53 | 42·2 | ... |
| | ... ... ... | Nov. | 2 | M | | 52 | 16·56 | ... | | 53 | 43·7 | ... |
| | ... ... .. | ,, | 6 | M | | 52 | 16·56 | ... | | 53 | 43·9 | ... |
| 781 | 10990 Taylor ... | Oct. | 10 | M | 23 | 56 | 50·96 | ... | 148 | 35 | 29·9 | 9·3 |
| | ... ... ... | Nov. | 11 | M | | 56 | 50·80 | 5 | | 35 | 30·1 | 9·1 |
| 782 | 10994 Taylor .. | Oct. | 9 | M | 23 | 57 | 44·29 | ... | 147 | 36 | 20·6 | 8·0 |

# MEAN POSITIONS OF STARS

OBSERVED WITH THE

# MADRAS MERIDIAN CIRCLE

IN THE YEAR

1863

REDUCED TO JANUARY 1. OF THAT YEAR.

*Mean Positions of Stars for 1863 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | *h.* | *m.* | *s.* | ° | ′ | ″ | | |
| 1 | 21 Androm. α (*Alpherat*)... | 2·0 | ... | 0 | 1 | 18·65 | 61 | 39 | 59·5 | 4 | 0·84 |
| 2 | .. ... ... ... | 6·3 | 2 | 0 | 6 | 3·64 | 148 | 40 | 36·5 | 2 | 0·82 |
| 3 | 88 Pegasi γ (*Algenib*) ... | 2·7 | ... | 0 | 6 | 10·97 | 75 | 34 | 43·5 | 6 | 0·81 |
| 4 | .. ... ... ... | 8·9 | 2 | 0 | 9 | 19·89 | 149 | 32 | 11·4 | 2 | 0·82 |
| 5 | ... ... ... ... | 9·4 | 1 | 0 | 12 | 44·45 | 150 | 26 | 58·0 | 1 | 0·84 |
| 6 | 41 Piscium *d* ... ... | 6·0 | ... | 0 | 13 | 32·96 | 82 | 34 | 16·0 | 1 | 0·73 |
| 7 | R Andromedæ Var. 1 ... | 8·4 | 5 | 0 | 16 | 48·16 | 52 | 10 | 55·4 | 5 | 0·76 |
| 8 | ... ... ... .. | 9·7 | 4 | 0 | 17 | 34·73 | 149 | 35 | 29·5 | 4 | 0·83 |
| 9 | 45 Piscium ... ... | 6·8 | ... | 0 | 18 | 33·19 | 83 | 3 | 59·8 | 3 | 0·84 |
| 10 | 12 Ceti ... ... .. | 6·5 | ... | 0 | 23 | 2·81 | 94 | 42 | 54·2 | 6 | 0·86 |
| 11 | ... ... ... ... | 10·5 | 1 | 0 | 25 | 18·92 | 76 | 9 | 33·2 | 1 | 0·89 |
| 12 | ... .. ... ... | 9·6 | 6 | 0 | 28 | 50·66 | 89 | 7 | 55·6 | 7 | 0·83 |
| 13 | ... ... ... .. | 9·6 | 9 | 0 | 30 | 41·81 | 89 | 7 | 54·3 | 10 | 0·80 |
| 14 | 18 Cassiopeæ α Var. 1 ... | 3·0 | ... | 0 | 32 | 45·04 | 34 | 12 | 54·1 | 2 | 0·93 |
| 15 | 1097 Lalande ... ... | 8·1 | 6 | 0 | 34 | 32·75 | 89 | 0 | 17·3 | 6 | 0·86 |
| 16 | 1123 Lalande ... ... | 9·0 | 8 | 0 | 35 | 38·90 | 89 | 3 | 31·7 | 8 | 0·87 |
| 17 | 16 Ceti β ... ... ... | 2·0 | ... | 0 | 36 | 42·69 | 108 | 44 | 20·9 | 2 | 0·94 |
| 18 | 1198 Lalande ... ... | 8·8 | 8 | 0 | 38 | 3·50 | 88 | 56 | 37·0 | 9 | 0·90 |
| 19 | 0.658 W. B. E. ... ... | 9·5 | 8 | 0 | 38 | 34·94 | 89 | 2 | 32·4 | 9 | 0·89 |
| 20 | 63 Piscium δ ... ... | 4·9 | ... | 0 | 41 | 34·55 | 83 | 9 | 41·0 | 2 | 0·77 |
| 21 | .. .. ... .. | 9·3 | 5 | 0 | 41 | 37·08 | 89 | 6 | 56·0 | 6 | 0·91 |
| 22 | .. ... ... .. | 9·9 | 9 | 0 | 42 | 5·98 | 88 | 49 | 48·6 | 10 | 0·86 |
| 23 | 0.806 W. B. E. ... .. | 9·7 | 7 | 0 | 46 | 36·84 | 88 | 50 | 6·3 | 7 | 0·85 |
| 24 | .. .. .. ... | 9·1 | ... | 0 | 47 | 52·11 | 133 | 47 | 34·4 | 1 | 0·73 |
| 25 | 1638 Lalande ... ... | 7·8 | 6 | 0 | 50 | 37·46 | 88 | 57 | 25·0 | 7 | 0·87 |
| 26 | 1639 Lalande ... .. | 8·9 | 5 | 0 | 50 | 39·34 | 88 | 38 | 54·9 | 7 | 0·89 |
| 27 | 271 Lacaille . ... | 7·8 | 1 | 0 | 52 | 39·79 | 151 | 26 | 17·1 | 1 | 0·77 |
| 28 | 1784 Lalande . .. | 8·1 | 7 | 0 | 54 | 55·91 | 88 | 12 | 48·3 | 7 | 0·86 |
| 29 | 71 Piscium ε ... .. | 4·6 | ... | 0 | 55 | 50·07 | 82 | 50 | 54·5 | 11 | 0·97 |
| 30 | 1879 Lalande .. .. | 7·9 | 6 | 0 | 57 | 40·82 | 88 | 25 | 15·6 | 7 | 0·86 |
| 31 | 0.1031 W. B. E. .. | 9·0 | 7 | 0 | 59 | 4·86 | 88 | 6 | 8·9 | 7 | 0·89 |
| 32 | ... ... ... | 9·8 | 10 | 1 | 2 | 8·88 | 87 | 57 | 27·7 | 10 | 0·83 |
| 33 | 1.15 W. B. E. ... | 9·4 | 9 | 1 | 2 | 57·06 | 87 | 20 | 1·8 | 9 | 0·93 |
| 34 | 2089 Lalande . | 8·7 | 5 | 1 | 3 | 24·39 | 88 | 10 | 34·9 | 7 | 0·93 |
| 35 | 33 Ceti .. ... | 6·3 | ... | 1 | 3 | 30·63 | 88 | 17 | 5·7 | 4 | 0·90 |

7.—R Andromedæ Var. 1.—Period, 405 days.—Range, 6th. to 13th. magnitude.

12, 13, 15, 16, 18, 19, 21, 22, 23, 25, 26, 28, 30, 31, 32, 33, 34, 35. Comparison stars used with Mars in opposition in 1862, for investigation of the constant of Solar Parallax.

14.—α Cassiopeæ Var. 1.—Irregular. Range, 2·2 to 2·8 magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 1 | 21 Andromedæ α ... | + 3·0761 | + 0·0182 | + 0·009 | − 20·056 | + 0·013 | + 0·15 | 4 |
| 2 | ... ... ... ... | + 3·0140 | − 0·0440 | ... | − 20·048 | + 0·021 | ... | ... |
| 3 | 88 Pegasi γ .. ... | + 3·0812 | + 0·0100 | 0·000 | − 20·049 | + 0·022 | + 0·02 | 26 |
| 4 | | + 2·9795 | − 0·0452 | ... | − 20·039 | + 0·027 | ... | |
| 5 | .. | + 2·9411 | − 0·0453 | ... | − 20·024 | + 0·033 | ... | .. |
| 6 | 41 Piscium d | + 3·0824 | + 0·0066 | − 0·002 | − 20·020 | + 0·036 | − 0·01 | 66 |
| 7 | R Andromedæ V. 1 . | + 3·1481 | + 0·0271 | ... | − 20·001 | + 0·043 | ... | ... |
| 8 | . | + 2·8975 | − 0·0419 | ... | − 19·996 | + 0·034 | .. | |
| 9 | 45 Piscium | + 3·0853 | + 0·0066 | ... | − 19·989 | + 0·046 | ... | 89 |
| 10 | 12 Ceti . | + 3·0609 | + 0·0008 | − 0·002 | − 19·955 | + 0·055 | + 0·01 | 112 |
| 11 | ... . | + 3·1084 | + 0·0108 | ... | − 19·933 | + 0·059 | ... | ... |
| 12 | ... . | + 3·0746 | + 0·0039 | ... | − 19·896 | + 0·065 | ... | |
| 13 | . . | + 3·0748 | + 0·0040 | ... | − 19·875 | + 0·069 | . | .. |
| 14 | 18 Cassiop α Var. 1 . | + 3·3519 | + 0·0553 | + 0·006 | − 19·851 | + 0·080 | + 0·04 | 169 |
| 15 | 1097 Lalande | + 3·0755 | + 0·0043 | ... | − 19·828 | + 0·076 | ... | |
| 16 | 1123 Lalande . | + 3·0755 | + 0·0044 | ... | − 19·814 | + 0·079 | ... | ... |
| 17 | 16 Ceti β | + 2·9997 | − 0·0055 | + 0·013 | − 19·799 | + 0·080 | − 0·02 | 196 |
| 18 | 1198 Lalande | + 3·0761 | + 0·0045 | ... | − 19·779 | + 0·083 | ... | ... |
| 19 | 0.658 W. B. E. | + 3·0758 | + 0·0046 | ... | − 19·772 | + 0·084 | ... | . |
| 20 | 63 Piscium δ .. | + 3·1009 | + 0·0079 | + 0·008 | − 19·727 | + 0·090 | + 0·05 | 222 |
| 21 | ... . | + 3·0758 | + 0·0047 | . | − 19·726 | + 0·089 | ... | |
| 22 | .. | + 3·0770 | + 0·0048 | . | − 19·718 | + 0·090 | | |
| 23 | 0.806 W. B. E. | + 3·0776 | + 0·0051 | ... | − 19·642 | + 0·099 | | .. |
| 24 | | + 2·8063 | − 0·0185 | | − 19·619 | + 0·093 | | |
| 25 | 1638 Lalande | + 3·0774 | + 0·0052 | | − 19·567 | + 0·107 | | |
| 26 | 1639 Lalande | + 3·0790 | + 0·0054 | | − 19·567 | + 0·107 | | |
| 27 | 271 Lacaille | + 2·5126 | − 0·0289 | ... | − 19·529 | + 0·092 | | 276 |
| 28 | 1784 Lalande | + 3·0820 | + 0·0058 | .. | − 19·481 | + 0·115 | | |
| 29 | 71 Piscium ε . .. | + 3·1125 | + 0·0087 | − 0·002 | − 19·463 | + 0·119 | 0·00 | 288 |
| 30 | 1879 Lalande .. | + 3·0813 | + 0·0058 | .. | − 19·423 | + 0·120 | | |
| 31 | 0 1031 W. B. E . | + 3·0834 | + 0·0061 | . | − 19·392 | + 0·123 | ... | |
| 32 | | + 3·0849 | + 0·0063 | ... | − 19·323 | + 0·129 | . | |
| 33 | 1.15 W. B. E. | + 3·0870 | + 0·0065 | | − 19·304 | + 0·130 | | |
| 34 | 2089 Lalande | + 3·0837 | + 0·0062 | . | − 19·293 | + 0·131 | .. | |
| 35 | 33 Ceti .. | + 3·0830 | + 0·0062 | − 0·003 | − 19·290 | + 0·131 | + 0·02 | 344 |

*Mean Positions of Stars for 1863 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | *h.* | *m.* | *s.* | ° | ′ | ″ | | |
| 36 | 86 Piscium 3 ... ... | 6·0 | .. | 1 | 6 | 34·48 | 83 | 9 | 0·7 | 3 | 0·79 |
| 37 | 1.101 W. B. E. ... .. | 8·9 | 6 | 1 | 7 | 42·74 | 87 | 54 | 18·0 | 7 | 0·90 |
| 38 | 1 Urs. Min. α (*Polaris*) ... | 2·0 | . | 1 | 8 | 59·64 | 1 | 25 | 15·5 | 9 | 0·46 |
| 39 | ... ... ... .. | 9·8 | 8 | 1 | 9 | 13·01 | 87 | 42 | 24·5 | 8 | 0·85 |
| 40 | 45 Ceti θ ... .. ... | 3·0 | ... | 1 | 17 | 10·52 | 98 | 53 | 29·5 | 12 | 0·93 |
| 41 | ... ... ... ... | 8·1 | 2 | 1 | 23 | 24·95 | 87 | 44 | 17·2 | 2 | 0·92 |
| 42 | R Piscium Var. 1 ... | 10·2 | 1 | 1 | 23 | 34·40 | 87 | 49 | 43·4 | 1 | 0·98 |
| 43 | 99 Piscium η ... ... | 4·0 | ... | 1 | 24 | 9·33 | 75 | 21 | 43·4 | 10 | 0·90 |
| 44 | 102 Piscium π .. ... | 6·0 | ... | 1 | 29 | 50·24 | 78 | 33 | 39·1 | 1 | 0·82 |
| 45 | 525 Taylor ... ... | 5·9 | 2 | 1 | 30 | 6·98 | 148 | 50 | 23·7 | 2 | 0·84 |
| 46 | 539 Taylor ... ... | 5·6 | 2 | 1 | 31 | 43·67 | 148 | 58 | 16·6 | 2 | 0·84 |
| 47 | α Eridani (*Achernar*) ... | 1·0 | ... | 1 | 32 | 36·71 | 147 | 56 | 2·7 | 2 | 0·93 |
| 48 | 106 Piscium ν ... ... | 4·7 | .. | 1 | 34 | 18·23 | 85 | 12 | 25·4 | 5 | 0·89 |
| 49 | 503 Lacaille . ... | 7·9 | 2 | 1 | 35 | 40·96 | 151 | 41 | 36·8 | 2 | 0·88 |
| 50 | 507 Lacaille ... | 6·2 | 2 | 1 | 37 | 6·50 | 151 | 28 | 50·3 | 2 | 0·88 |
| 51 | 110 Piscium ο ... ... | 4·5 | ... | 1 | 38 | 9·67 | 81 | 31 | 59·8 | 1 | 0·89 |
| 52 | ... ... ... ... | 9·3 | 2 | 1 | 39 | 51·51 | 140 | 37 | 40·1 | 2 | 0·83 |
| 53 | ... ... ... ... | 9·7 | 2 | 1 | 46 | 7·56 | 148 | 58 | 15·1 | 2 | 0·90 |
| 54 | 6 Arietis β ... ... | 2·7 | ... | 1 | 47 | 4·60 | 69 | 51 | 48·8 | 13 | 0·92 |
| 55 | ... ... ... .. | 9·4 | 2 | 1 | 48 | 31·09 | 150 | 5 | 31·0 | 2 | 0·87 |
| 56 | 582 Lacaille ... ... | 8·6 | 2 | 1 | 50 | 52·76 | 145 | 44 | 39·6 | 2 | 0·84 |
| 57 | ... ... .. ... | 9·6 | 2 | 1 | 59 | 21·58 | 150 | 2 | 49·9 | 2 | 0·87 |
| 58 | 13 Arietis α ... .. | 2·0 | .. | 1 | 59 | 27·31 | 67 | 11 | 15·3 | 10 | 0·94 |
| 59 | 630 Lacaille ... ... | 6·0 | 2 | 1 | 59 | 46·48 | 145 | 32 | 17·0 | 2 | 0·86 |
| 60 | .. ... ... ... | 9·6 | 2 | 2 | 1 | 1·59 | 140 | 49 | 21·0 | 2 | 0·83 |
| 61 | 697 Taylor ... .. | 7·4 | 2 | 2 | 1 | 43·93 | 145 | 44 | 15·9 | 2 | 0·90 |
| 62 | 17 Arietis η ... ... | 6·0 | ... | 2 | 5 | 8·15 | 69 | 26 | 5·5 | 1 | 0·96 |
| 63 | 677 Lacaille ... .. | 8·0 | 1 | 2 | 6 | 54·10 | 140 | 47 | 52·8 | 1 | 0·85 |
| 64 | .. .. ... .. | 9·8 | 1 | 2 | 6 | 56·71 | 148 | 39 | 40·7 | 1 | 0·86 |
| 65 | 67 Ceti ... .. ... | 6·0 | ... | 2 | 10 | 9·05 | 97 | 3 | 20·0 | 6 | 0·96 |
| 66 | 68 Ceti ο Var. 1 . . | 7·8 | 1 | 2 | 12 | 25·04 | 93 | 36 | 8·6 | 1 | 0·96 |
| 67 | ... .. .. ... | 9·7 | 2 | 2 | 13 | 56·34 | 148 | 27 | 12·9 | 2 | 0·83 |
| 68 | ... ... . .. | 8·1 | 2 | 2 | 15 | 37 88 | 152 | 34 | 27·9 | 2 | 0·91 |
| 69 | 819 Taylor ... .. | 8·3 | 2 | 2 | 19 | 6·29 | 147 | 26 | 14·9 | 2 | 0·82 |
| 70 | 73 Ceti ξ² . . ... | 4·5 | ... | 2 | 20 | 52·64 | 82 | 9 | 21·2 | 8 | 0·92 |

37.—39.—Comparison stars used with Mars in opposition in 1862, for investigation of the constant of Solar Parallax.

42.—R Piscium Var. 1.—Period, 345 days. Range, 7·5 to 12th. magnitude.

66.—Mira Ceti Var. 1.—Period, 331 days. Range, 2nd. to 10th. magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion | |
| | | s | s | s | " | " | " | |
| 36 | 86 Piscium ζ... | + 3·1180 | + 0·0090 | ... | − 19·215 | + 0·139 | ... | 368 |
| 37 | 1.101 W. B. E. ... | + 3·0863 | + 0·0066 | ... | − 19·186 | + 0·139 | ... | ... |
| 38 | 1 Urs. Min. α .. | + 19·0547 | + 13·1148 | + 0·065 | − 19·153 | + 0·832 | 0·00 | 360 |
| 39 | — .. .. | + 3·0880 | + 0·0068 | .. | − 19·148 | + 0·142 | ... | ... |
| 40 | 45 Ceti θ .. .. | + 3·0029 | + 0·0018 | − 0·007 | − 18·929 | + 0·154 | + 0·22 | 420 |
| 41 | .. .. ... | + 3·0909 | + 0·0073 | ... | − 18·741 | + 0·169 | ... | ... |
| 42 | R Piscium Var. 1 ... | + 3·0902 | + 0·0073 | ... | − 18·736 | + 0·169 | ... | ... |
| 43 | 99 Piscium η... .. | + 3·1974 | + 0·0142 | 0·000 | − 18·719 | + 0·176 | 0·00 | 453 |
| 44 | 102 Piscium π ... | + 3·1754 | + 0·0125 | − 0·007 | − 18·534 | + 0·185 | − 0·03 | 458 |
| 45 | 525 Taylor . | + 2·2248 | − 0·0135 | .. | − 18·525 | + 0·133 | ... | ... |
| 46 | 539 Taylor ... ... | + 2·2061 | − 0·0129 | .. | − 18·471 | + 0·133 | ... | 497 |
| 47 | α Eridani ... ... | + 2·2329 | − 0·0128 | + 0·008 | − 18·440 | + 0·137 | + 0·07 | 507 |
| 48 | 106 Piscium ν ... | + 3·1168 | + 0·0091 | − 0·004 | − 18·382 | + 0·191 | + 0·04 | 518 |
| 49 | 503 Lacaille ... ... | + 2·0655 | − 0·0104 | ... | − 18·333 | + 0·130 | ... | ... |
| 50 | 507 Lacaille... ... | + 2·0604 | − 0·0099 | ... | − 18·252 | + 0·132 | ... | 531 |
| 51 | 110 Piscium ο ... | + 3·1547 | + 0·0111 | + 0·006 | − 18·244 | + 0·200 | − 0·01 | 537 |
| 52 | — ... .. | + 2·1155 | − 0·0108 | .. | − 18·182 | + 0·138 | ... | ... |
| 53 | .. ... .. | + 2·0793 | − 0·0082 | ... | − 17·943 | + 0·144 | ... | ... |
| 54 | 6 Arietis β ... ... | + 3·2928 | + 0·0183 | + 0·002 | − 17·906 | + 0·220 | + 0·11 | 577 |
| 55 | .. — .. | + 2·0121 | − 0·0067 | ... | − 17·849 | + 0·142 | ... | ... |
| 56 | 582 Lacaille . . | + 2·1588 | − 0·0081 | ... | − 17·754 | + 0·165 | ... | ... |
| 57 | — .. ... | + 1·9176 | − 0·0031 | ... | − 17·396 | + 0·146 | .. | ... |
| 58 | 13 Arietis α . . | + 3·3521 | + 0·0203 | + 0·012 | − 17·392 | + 0·252 | + 0·15 | 648 |
| 59 | 630 Lacaille . .. | + 2·0991 | − 0·0059 | ... | − 17·374 | + 0·160 | .. | .. |
| 60 | .. . .. | + 1·9137 | − 0·0028 | ... | − 17·323 | + 0·148 | .. | ... |
| 61 | 697 Taylor .. ... | + 2·0778 | − 0·0053 | . | − 17·292 | + 0·162 | .. | 659 |
| 62 | 17 Arietis γ ... . | + 3·3325 | + 0·0188 | + 0·009 | − 17·139 | + 0·260 | − 0·01 | 682 |
| 63 | 677 Lacaille ... ... | + 1·8641 | − 0·0011 | ... | − 17·058 | + 0·150 | .. | .. |
| 64 | — .. . | + 1·9170 | − 0·0021 | .. | − 17·057 | + 0·154 | ... | . |
| 65 | 67 Ceti . | + 2·9829 | + 0·0019 | + 0·003 | − 16·907 | + 0·242 | + 0·14 | 704 |
| 66 | ο Ceti Var. 1... .. | + 3·0261 | + 0·0064 | − 0·001 | − 16·790 | + 0·248 | + 0·23 | 720 |
| 67 | ... — — | + 1·8704 | − 0·0008 | ... | − 16·726 | + 0·158 | .. | .. |
| 68 | — — ... | + 1·6347 | + 0·0055 | .. | − 16·644 | + 0·140 | ... | .. |
| 69 | 818 Taylor .. . | + 1·8778 | − 0·0001 | .. | − 16·473 | + 0·168 | .. | 753 |
| 70 | 73 Ceti ξ² ... | + 3·1782 | + 0·0117 | + 0·001 | − 16·385 | + 0·276 | + 0·02 | 760 |

47.—Proper Motions adopted from "*Stone's Catalogue.*"
67—70.—Proper Motions adopted from "*Greenwich Catalogues.*"

*Mean Positions of Stars for 1863 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | *h.* | *m.* | *s.* | ° | ′ | ″ | | |
| 71 | λ Horologii .. ... | 6·5 | 2 | 2 | 21 | 4·15 | 150 | 55 | 35·8 | 2 | 0·92 |
| 72 | 26 R. P. L. ... ... | 8·0 | ... | 2 | 22 | 11·82 | 3 | 33 | 12·5 | 2 | 0·89 |
| 73 | ... ... .. ... | 9·4 | 2 | 2 | 24 | 13·66 | 152 | 35 | 56·0 | 2 | 0·91 |
| 74 | ... ... ... ... | 8·8 | 2 | 2 | 27 | 23·68 | 147 | 12 | 28·9 | 2 | 0·82 |
| 75 | 31 Arietis ... ... ... | 5·5 | ... | 2 | 29 | 9·86 | 78 | 8 | 55·0 | 1 | 0·89 |
| 76 | 849 Lacaille 1st ... .. | 7·8 | 1 | 2 | 35 | 59·20 | 150 | 9 | 25·0 | 1 | 0·86 |
| 77 | 849 Lacaille 2nd ... ... | 8·0 | 2 | 2 | 36 | 3·86 | 150 | 9 | 32·2 | 2 | 0·95 |
| 78 | 86 Ceti γ ... ... ... | 3·3 | ... | 2 | 36 | 12·22 | 87 | 20 | 38·7 | 6 | 0·91 |
| 79 | 38 Arietis ... ... ... | 5·4 | ... | 2 | 37 | 29·97 | 78 | 7 | 55·9 | 1 | 0·89 |
| 80 | 868 Lacaille ... ... | 8·3 | 2 | 2 | 38 | 31·18 | 147 | 13 | 27·0 | 2 | 0·82 |
| 81 | ... ... ... ... | 8·7 | 1 | 2 | 43 | 16·32 | 148 | 0 | 51·6 | 1 | 0·95 |
| 82 | ... ... ... ... | 8·8 | 2 | 2 | 44 | 27·50 | 148 | 14 | 5·5 | 2 | 0·52 |
| 83 | ... ... ... ... | 9·0 | 1 | 2 | 45 | 12·36 | 76 | 28 | 9·1 | 1 | 0·90 |
| 84 | 48 Arietis ε ... ... | 4·3 | ... | 2 | 51 | 22·99 | 69 | 12 | 37·9 | 2 | 0·82 |
| 85 | ... ... ... ... | 8·5 | 1 | 2 | 52 | 20·72 | 150 | 17 | 22·3 | 1 | 0·98 |
| 86 | 92 Ceti α (*Menkar*) ... | 2·3 | ... | 2 | 55 | 7·17 | 86 | 27 | 0·4 | 8 | 0·93 |
| 87 | 25 Persei ρ Var. 2 .. | 4·0 | ... | 2 | 56 | 24·33 | 51 | 41 | 38·0 | 1 | 0·94 |
| 88 | 26 Persei β Var. 1 ... | 2·7 | ... | 2 | 59 | 15·82 | 49 | 34 | 55·4 | 1 | 0·96 |
| 89 | 1047 Taylor ... ... | 6·0 | 1 | 2 | 59 | 50·11 | 151 | 20 | 4·8 | 1 | 0·85 |
| 90 | 33 R. P. L. ... ... | 5·8 | ... | 3 | 0 | 29·83 | 5 | 35 | 3·8 | 2 | 0·02 |
| 91 | 57 Arietis δ ... ... | 4·3 | ... | 3 | 3 | 47·97 | 70 | 47 | 39·7 | 5 | 0·88 |
| 92 | ... ... ... ... | 8·7 | 3 | 3 | 12 | 38·96 | 130 | 50 | 31·5 | 3 | 0·66 |
| 93 | 61 Arietis τ¹ ... ... | 5·5 | ... | 3 | 13 | 19·33 | 69 | 20 | 59·4 | 2 | 0·89 |
| 94 | ... ... ... ... | 9·2 | 1 | 3 | 14 | 49·98 | 150 | 6 | 32·6 | 1 | 0·82 |
| 95 | 1 Tauri o ... ... ... | 4·7 | ... | 3 | 17 | 26·50 | 81 | 27 | 20·8 | 1 | 0·95 |
| 96 | ... ... ... ... | 9·0 | 1 | 3 | 20 | 16·88 | 149 | 19 | 7·8 | 1 | 0·82 |
| 97 | R Persei Var. 3 ... ... | 10·0 | 2 | 3 | 21 | 20·23 | 54 | 48 | 15·4 | 2 | 0·97 |
| 98 | ... ... ... ... | 7·5 | 1 | 3 | 21 | 56·75 | 88 | 13 | 37·5 | 1 | 0·88 |
| 99 | ... .. ... .. | 9·2 | 2 | 3 | 25 | 51·95 | 87 | 53 | 30·3 | 2 | 0·89 |
| 100 | 1193 Lacaille ... ... | 8·3 | 1 | 3 | 35 | 14·00 | 146 | 35 | 24·7 | 1 | 0·93 |
| 101 | 1200 Lacaille ... ... | 6·7 | 1 | 3 | 36 | 23·16 | 146 | 40 | 44·3 | 1 | 0·87 |
| 102 | ... ... ... ... | 9·0 | 1 | 3 | 38 | 3·95 | 136 | 13 | 2·8 | 1 | 0·90 |
| 103 | 25 Tauri η (*Alcyone*) ... | 3·0 | ... | 3 | 39 | 20·66 | 66 | 19 | 18·3 | 10 | 0·56 |
| 104 | .. .. ... ... | 8·8 | 2 | 3 | 45 | 5·39 | 76 | 27 | 56·3 | 3 | 0·08 |
| 105 | 34 Eridani γ¹ ... ... | 3·0 | ... | 3 | 51 | 38·25 | 103 | 54 | 2·6 | 8 | 0·89 |

72.—352 Carrington.
87.—ρ Persei Var. 2.—Irregular ;—changes from 3·5 to 4·3 magnitude
88.—Algol.—Period, 2·867 days.—Range, 2·5 to 4th magnitude.
90.—595 Groombridge.
97.—R Persei Var. 3.—Period, 209 days.—Range, 8·5 to 12·5 magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance | | | Number in B. A. C |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 71 | λ Horologii ... ... | + 1·6834 | + 0·0044 | ... | − 16·374 | + 0·149 | ... | 762 |
| 72 | 26 R. P. L. ... ... | + 15·5894 | + 3·5830 | .. | − 16·317 | + 1·329 | ... | .. |
| 73 | ... .. ... | + 1·5539 | + 0·0073 | ... | − 16·214 | + 0·141 | .. | ... |
| 74 | ... ... ... | + 1·8275 | + 0·0016 | ... | − 16·048 | + 0·167 | ... | .. |
| 75 | 31 Arietis ... ... | + 3·2420 | + 0·0137 | + 0·017 | − 15·955 | + 0·294 | + 0·09 | 798 |
| 76 | 849 Lacaille 1st ... | + 1·6056 | + 0·0071 | .. | − 15·586 | + 0·154 | ... | ... |
| 77 | 849 Lacaille 2nd ... | + 1·6049 | + 0·0071 | ... | − 15·582 | + 0·154 | ... | .. |
| 78 | 86 Ceti γ ... ... | + 3·1111 | + 0·0094 | − 0·011 | − 15·575 | + 0·294 | + 0·19 | 837 |
| 79 | 38 Arietis ... ... | + 3·2503 | + 0·0137 | + 0·008 | − 15·503 | + 0·308 | + 0·10 | 844 |
| 80 | 868 Lacaille ... ... | + 1·7476 | + 0·0040 | ... | − 15·448 | + 0·170 | ... | ... |
| 81 | ... ... ... | + 1·6726 | + 0·0057 | ... | − 15·178 | + 0·167 | ... | .. |
| 82 | ... ... ... | + 1·6522 | + 0·0062 | .. | − 15·110 | + 0·165 | ... | ... |
| 83 | ... ... ... | + 3·2844 | + 0·0144 | ... | − 15·066 | + 0·322 | ... | |
| 84 | 48 Arietis ε ... ... | + 3·4172 | + 0·0185 | − 0·001 | − 14·704 | + 0·343 | + 0·02 | 921 |
| 85 | ... ... ... | + 1·4718 | + 0·0026 | ... | − 14·647 | + 0·153 | ... | ... |
| 86 | 92 Ceti α ... .. | + 3·1293 | + 0·0098 | − 0·002 | − 14·480 | + 0·323 | + 0·11 | 949 |
| 87 | ρ Persei Var. 2 ... | + 3·8070 | + 0·0332 | + 0·010 | − 14·402 | + 0·393 | + 0·11 | 953 |
| 88 | β Persei Var. 1 ... | + 3·8746 | + 0·0356 | − 0·002 | − 14·226 | + 0·406 | − 0·01 | 963 |
| 89 | 1047 Taylor ... .. | + 1·3440 | + 0·0139 | ... | − 14·191 | + 0·145 | ... | 968 |
| 90 | 83 R. P. L. ... ... | + 12·7618 | + 1·5797 | ... | − 14·150 | + 1·325 | + 0·08 | 960 |
| 91 | 57 Arietis δ .. ... | + 3·4067 | + 0·0171 | + 0·010 | − 13·945 | + 0·364 | 0·00 | 986 |
| 92 | ... ... ... | + 3·2110 | + 0·0012 | ... | − 13·377 | + 0·246 | ... | ... |
| 93 | 61 Arietis τ[1]... ... | + 3·4485 | + 0·0175 | − 0·001 | − 13·333 | + 0·382 | + 0·03 | 1034 |
| 94 | ... ... .. | + 1·3243 | + 0·0138 | ... | − 13·235 | + 0·151 | ... | ... |
| 95 | 1 Tauri o ... ... | + 3·2245 | + 0·0115 | ... | − 13·062 | + 0·363 | ... | 1067 |
| 96 | ... ... .. | + 1·3441 | + 0·0131 | ... | − 12·872 | + 0·156 | ... | .. |
| 97 | R Persei Var. 3 ... | + 3·7980 | + 0·0278 | ... | − 12·801 | + 0·432 | ... | . |
| 98 | ... ... ... | + 3·1042 | + 0·0089 | ... | − 12·761 | + 0·355 | . | . |
| 99 | ... ... | + 3·1105 | + 0·0089 | ... | − 12·494 | + 0·360 | ... | ... |
| 100 | 1193 Lacaille .. | + 1·4363 | + 0·0105 | ... | − 11·842 | + 0·174 | ... | . |
| 101 | 1200 Lacaille .. .. | + 1·4247 | + 0·0107 | ... | − 11·761 | + 0·173 | ... | ... |
| 102 | .. ... ... | + 1·8360 | + 0·0044 | ... | − 11·641 | + 0·223 | ... | ... |
| 103 | 25 Tauri η ... ... | + 3·5513 | + 0·0177 | − 0·001 | − 11·551 | + 0·430 | + 0·06 | 1166 |
| 104 | . .. ... | + 3·3398 | + 0·0124 | ... | − 11·182 | + 0·410 | .. | . |
| 105 | 34 Eridani γ[1] .. | + 2·7916 | + 0·0047 | + 0·003 | − 10·655 | − 0·350 | + 0·12 | 1234 |

75.—87.—Proper Motions adopted from "*Greenwich Catalogues.*"
90.—Proper Motion in Polar Distance from "*Radcliffe Polar List for 1855.*"

*Mean Positions of Stars for 1863 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 106 | ... ... ... ... | 10·0 | 1 | 3 | 53 | 2·96 | 128 | 25 | 35·7 | 1 | 0·90 |
| 107 | 35 Tauri λ Var. 1 ... | 4·5 | ... | 3 | 53 | 5·59 | 77 | 54 | 7·4 | 2 | 0·02 |
| 108 | ... ... ... ... | 8·1 | 1 | 3 | 53 | 38·68 | 143 | 8 | 33·2 | 1 | 0·95 |
| 109 | 37 Tauri A¹ ... | 4·7 | ... | 3 | 56 | 35·88 | 68 | 17 | 46·3 | 3 | 0·87 |
| 110 | 7581 Lalande ... ... | 9·0 | 1 | 3 | 58 | 10·39 | 74 | 52 | 31·1 | 2 | 0·10 |
| 111 | ... ... ... ... | 10·2 | 2 | 4 | 3 | 20·50 | 68 | 30 | 27·8 | 2 | 0·40 |
| 112 | 7764 Lalande ... ... | 8·4 | 2 | 4 | 3 | 24·92 | 74 | 44 | 1·5 | 2 | 0·10 |
| 113 | ... ... ... ... | 9·2 | 1 | 4 | 3 | 41·01 | 146 | 56 | 38·5 | 1 | 0·90 |
| 114 | 38 Eridani ο¹ ... .. | 4·4 | ... | 4 | 5 | 10·72 | 97 | 11 | 51·6 | 2 | 0·50 |
| 115 | 1418 Lacaille ... .. | 8·1 | 2 | 4 | 12 | 25·54 | 143 | 39 | 54·7 | 2 | 0·43 |
| 116 | ... ... ... ... | 8·9 | 2 | 4 | 13 | 44·15 | 70 | 51 | 40·4 | 2 | 0·92 |
| 117 | . ... ... ... | 9·5 | 2 | 4 | 15 | 37·69 | 128 | 39 | 58·4 | 2 | 0·09 |
| 118 | ... ... ... ... | 8·7 | 1 | 4 | 16 | 44·94 | 149 | 4 | 34·4 | 1 | 0·93 |
| 119 | 74 Tauri ε .. ... ... | 3·7 | ... | 4 | 20 | 37·18 | 71 | 7 | 36·8 | 11 | 0·34 |
| 120 | ... ... ... ... | 10·2 | 1 | 4 | 21 | 58·85 | 80 | 28 | 12·0 | 1 | 0·98 |
| 121 | 1520 Lacaille ... ... | 8·7 | 1 | 4 | 26 | 39·85 | 147 | 29 | 8·1 | 1 | 0·95 |
| 122 | 87 Tauri α (*Aldebaran*) ... | 1·0 | ... | 4 | 28 | 3·73 | 73 | 46 | 10·8 | 11 | 0·35 |
| 123 | ... ... ... ... | 9·0 | 2 | 4 | 28 | 26·08 | 140 | 14 | 23·9 | 2 | 0·07 |
| 124 | ... .. .. ... | 9·4 | 2 | 4 | 31 | 41·27 | 142 | 59 | 42·6 | 2 | 0·51 |
| 125 | ... ... ... ... | 9·5 | 1 | 4 | 32 | 54·96 | 130 | 48 | 31·1 | 2 | 0·09 |
| 126 | 1566 Lacaille ... ... | 8·0 | 1 | 4 | 35 | 44·77 | 148 | 28 | 31·1 | 1 | 0·95 |
| 127 | ... .. ... ... | 9·5 | 2 | 4 | 36 | 15·84 | 64 | 19 | 23·1 | 2 | 0·90 |
| 128 | 1663 Taylor ... ... | 8·0 | 1 | 4 | 36 | 48·54 | 138 | 48 | 10·4 | 1 | 0·05 |
| 129 | ... ... ... | 9·5 | 1 | 4 | 39 | 28·24 | 128 | 57 | 40·0 | 2 | 0·08 |
| 130 | 1598 Lacaille .. . | 7·5 | 2 | 4 | 41 | 35·30 | 128 | 21 | 44·8 | 2 | 0·54 |
| 131 | . ... .. ... | 9·6 | 2 | 4 | 43 | 18·72 | 130 | 41 | 20·0 | 2 | 0·51 |
| 132 | 07 Tauri ι . ... | 5·5 | ... | 4 | 43 | 21·63 | 71 | 23 | 49·7 | 2 | 0·97 |
| 133 | 1625 Lacaille .. .. | 8·3 | 3 | 4 | 44 | 57·42 | 140 | 1 | 54·0 | 3 | 0·06 |
| 134 | .. ... . | 8·9 | 2 | 4 | 45 | 26·91 | 129 | 26 | 9·0 | 2 | 0·09 |
| 135 | 3 Aurigæ ι . | 3·0 | . | 4 | 48 | 4·45 | 57 | 3 | 16·9 | 3 | 0·06 |
| 136 | 1761 Taylor . | 7·5 | 1 | 4 | 49 | 57·63 | 129 | 18 | 43·8 | 1 | 0·06 |
| 137 | 7 Aurigæ ε Var. 1 | 3·5 | . | 4 | 52 | 8·56 | 46 | 23 | 0·7 | 3 | 0·09 |
| 138 | 1780 Taylor .. . | 9·0 | 1 | 4 | 52 | 15·45 | 144 | 28 | 52·0 | 1 | 0·06 |
| 139 | . ... .. | 9·0 | 1 | 4 | 52 | 17·06 | 129 | 30 | 57·2 | 1 | 0·06 |
| 140 | R Leporis Var. 1 | 6·3 | 3 | 4 | 53 | 23·12 | 105 | 0 | 54·4 | 8 | 0·02 |

107.—λ Tauri Var. 1.—Period, 3·95 days.—Range, 3·5 to 4·3 magnitude.
110 and 112.—Comparison stars for Asia in 1862.
137.—ε Aurigæ Var. 1.—Supposed to be irregularly variable.
140.—R Leporis Var. 1.—Period, 438 days.—Range, 6th. to 9th. magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. Annual Precession. | In Right Ascension. Secular Variation. | In Right Ascension. Proper Motion. | In Polar Distance. Annual Precession. | In Polar Distance. Secular Variation. | In Polar Distance. Proper Motion. | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | s | s | s | " | " | " | |
| 106 | ... ... ... | + 2·1699 | + 0·0030 | ... | − 10·550 | + 0·274 | ... | ... |
| 107 | 35 Tauri λ Var. 1 . | + 3·3159 | + 0·0115 | ... | − 10·516 | + 0·416 | ... | 1241 |
| 108 | ... ... ... | + 1·5528 | + 0·0062 | ... | − 10·505 | + 0·208 | ... | .. |
| 109 | 37 Tauri A¹ ... ... | + 3·5290 | + 0·0153 | + 0·004 | − 10·284 | + 0·416 | + 0·09 | 1257 |
| 110 | 7581 Lalande ... | + 3·3836 | + 0·0124 | ... | − 10·166 | + 0·430 | ... | ... |
| 111 | ... ... .. | + 3·5318 | + 0·0147 | ... | − 9·773 | + 0·454 | .. | . |
| 112 | 7764 Lalande ... | + 3·3908 | + 0·0121 | ... | − 9·767 | + 0·436 | ... | .. |
| 113 | ... ... .. | + 1·2766 | + 0·0290 | ... | − 9·747 | + 0·167 | .. | ... |
| 114 | 38 Eridani o¹ .. | + 2·9239 | + 0·0058 | − 0·002 | − 9·632 | + 0·379 | − 0·07 | 1290 |
| 115 | 1418 Lacaille .. | + 1·4509 | + 0·0068 | ... | − 9·072 | + 0·196 | ... | ... |
| 116 | ... ... ... | + 3·4870 | + 0·0128 | ... | − 8·969 | + 0·459 | .. | .. |
| 117 | ... ... ... | + 2·1111 | + 0·0035 | ... | − 8·821 | + 0·281 | .. | ... |
| 118 | ... ... ... | + 1·0628 | + 0·0146 | ... | − 8·733 | + 0·144 | .. | .. |
| 119 | 74 Tauri ε . ... | + 3·4868 | + 0·0120 | + 0·005 | − 8·427 | + 0·468 | + 0·03 | 1376 |
| 120 | ... . ... | + 3·2762 | + 0·0090 | ... | − 8·319 | + 0·439 | ... | ... |
| 121 | 1520 Lacaille ... | + 1·1162 | + 0·0122 | ... | − 7·944 | + 0·157 | ... | ... |
| 122 | 87 Tauri α ... ... | + 3·4303 | + 0·0097 | + 0·004 | − 7·831 | + 0·464 | + 0·17 | 1420 |
| 123 | ... ... .. | + 1·5915 | + 0·0120 | ... | − 7·801 | + 0·217 | .. | ... |
| 124 | ... ... .. | + 1·4283 | + 0·0082 | .. | − 7·538 | + 0·196 | ... | ... |
| 125 | ... ... ... | + 2·0000 | + 0·0010 | ... | − 7·438 | + 0·274 | .. | . |
| 126 | 1566 Lacaille ... | + 1·0880 | + 0·0123 | ... | − 7·208 | + 0·144 | . | . |
| 127 | ... ... ... | + 3·6724 | + 0·0130 | ... | − 7·166 | + 0·503 | | .. |
| 128 | 1063 Taylor ... ... | + 1·0440 | + 0·0059 | . | − 7·121 | + 0·227 | ... | .. |
| 129 | ... .. ... | + 2·0571 | + 0·0037 | ... | − 6·902 | + 0·285 | .. | .. |
| 130 | 1598 Lacaille .. | + 2·[illegible]753 | + 0·0036 | .. | − 6·728 | + 0·288 | | |
| 131 | .. ... ... | + 1·[illegible]62 | + 0·0033 | . | − 6·586 | + 0·277 | .. | .. |
| 132 | 97 Tauri ι ... | + 3·4972 | + 0·0100 | + 0·003 | − 6·583 | + 0·485 | + 0·07 | 14[illegible] |
| 133 | 1625 Lacaille .. | + 1·5616 | + 0·0063 | .. | − 6·451 | + 0·219 | . | ... |
| 134 | .. .. . | + 2·0307 | + 0·0037 | . | − 6·410 | + 0·284 | .. | .. |
| 135 | 3 Aurigæ ι ... ... | + 3·8961 | + 0·0144 | − 0·008 | − 6·191 | + 0·544 | + 0·02 | 1520 |
| 136 | 1761 Taylor ... .. | + 2·02[illegible] | + 0·0033 | | − 6·045 | + 0·600 | . | |
| 137 | 7 Aurigæ ε Var. 1 .. | + 4·2906 | + 0·0199 | 0·000 | − 5·852 | + 0·60[illegible] | 0·00 | 1540 |
| 138 | 1750 Taylor . . | + 1·2691 | + 0·0084 | .. | − 5·8[illegible]2 | + 0·150 | | ... |
| 139 | . ... .. | + 2·0115 | + 0·0038 | . | − 5·840 | + 0·284 | .. | .. |
| 140 | R Leporis Var. 1 ... | + 2·7285 | + 0·0028 | .. | − 5·749 | + 0·3[illegible]2 | | ... |

*Mean Positions of Stars for 1863 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 141 | 102 Tauri ι ... ... | 4·9 | ... | 4 | 54 | 54·06 | 68 | 36 | 35·9 | 1 | 0·97 |
| 142 | .. ... ... ... | 9·1 | 3 | 4 | 55 | 54·53 | 130 | 17 | 46·1 | 3 | 0·10 |
| 143 | 1811 Taylor ... ... | 6·5 | 1 | 4 | 57 | 1·08 | 129 | 55 | 8·7 | 1 | 0·06 |
| 144 | 1705 Lacaille ... ... | 8·1 | 2 | 4 | 57 | 23·58 | 129 | 16 | 37·6 | 2 | 0·53 |
| 145 | 2 Leporis ε ... ... | 3·7 | ... | 4 | 59 | 39·73 | 112 | 33 | 27·0 | 6 | 0·07 |
| 146 | 15 Orionis ... ... | 6·0 | ... | 5 | 1 | 51·48 | 74 | 34 | 52·9 | 2 | 0·90 |
| 147 | ... ... ... ... | 9·0 | 2 | 5 | 6 | 0·27 | 131 | 45 | 47·3 | 2 | 0·09 |
| 148 | 13 Aurigæ α (*Capella*) ... | 1·0 | ... | 5 | 6 | 34·36 | 44 | 8 | 28·4 | 1 | 0·12 |
| 149 | ... ... ... ... | 8·3 | 2 | 5 | 6 | 50·01 | 129 | 6 | 7·9 | 2 | 0·09 |
| 150 | 19 Orionis β (*Rigel*) ... | 1·0 | ... | 5 | 7 | 57·22 | 98 | 21 | 47·2 | 4 | 0·28 |
| 151 | ... ... ... ... | 9·4 | 2 | 5 | 12 | 49·82 | 129 | 40 | 10·0 | 2 | 0·09 |
| 152 | 1822 Lacaille ... ... | 7·9 | 2 | 5 | 15 | 41·40 | 141 | 43 | 17·0 | 2 | 0·09 |
| 153 | 112 Tauri β ... ... | 2·0 | ... | 5 | 17 | 37·95 | 61 | 30 | 44·2 | 7 | 0·07 |
| 154 | ... .. . ... | 8·7 | 3 | 5 | 18 | 40·94 | 129 | 58 | 4·4 | 3 | 0·37 |
| 155 | .. ... ... ... | 9·5 | 1 | 5 | 19 | 43·42 | 131 | 3 | 57·6 | 1 | 0·06 |
| 156 | 34 Orionis δ Var. 1 ... | 2·0 | ... | 5 | 25 | 0·51 | 90 | 24 | 14·0 | 7 | 0·20 |
| 157 | 11 Leporis α ... ... | 3·0 | ... | 5 | 26 | 41·36 | 107 | 55 | 22·3 | 5 | 0·08 |
| 158 | 46 Orionis ε .. ... | 2·0 | ... | 5 | 29 | 15·75 | 91 | 17 | 33·5 | 3 | 0·07 |
| 159 | 123 Tauri ζ ... ... | 3·5 | .. | 5 | 29 | 27·46 | 68 | 56 | 41·2 | 1 | 0·08 |
| 160 | .. ... ... | 9·2 | 2 | 5 | 31 | 35·74 | 128 | 42 | 17·6 | 3 | 0·67 |
| 161 | .. .. .. ... | 9·2 | 2 | 5 | 32 | 39·85 | 128 | 41 | 17·9 | 2 | 0·53 |
| 162 | α Columbæ ... ... | 2·0 | ... | 5 | 34 | 41·37 | 124 | 8 | 56·9 | 5 | 0·08 |
| 163 | 2113 Taylor .. ... | 8·5 | 1 | 5 | 35 | 6·11 | 130 | 45 | 36·7 | 1 | 0·03 |
| 164 | . | 9·2 | 1 | 5 | 36 | 41·64 | 129 | 57 | 52·4 | 1 | 0·13 |
| 165 | . . ... | 9·0 | 1 | 5 | 38 | 21·66 | 130 | 5 | 27·8 | 2 | 0·09 |
| 166 | 1984 Lacaille .. ... | 7·8 | 2 | 5 | 40 | 39·87 | 130 | 15 | 20·9 | 2 | 0·08 |
| 167 | 54 Orionis $\chi^1$ ... .. | 5·0 | ... | 5 | 46 | 16·18 | 69 | 45 | 11·9 | 8 | 0·57 |
| 168 | 2036 Lacaille .. ... | 8·1 | 2 | 5 | 46 | 18·77 | 129 | 47 | 15·5 | 2 | 0·53 |
| 169 | 58 Orionis α Var. 2 ... | 1·0 | ... | 5 | 47 | 45·30 | 82 | 37 | 18·5 | 12 | 0·22 |
| 170 | . .. | 9·4 | 1 | 5 | 49 | 34·77 | 130 | 1 | 20·8 | 1 | 0·12 |
| 171 | . | 9·0 | 1 | 5 | 52 | 39·45 | 129 | 32 | 35·1 | 1 | 0·12 |
| 172 | .. | 8·0 | 1 | 5 | 53 | 14·79 | 131 | 7 | 15·1 | 2 | 0·08 |
| 173 | 2104 Lacaille .. ... | 8·1 | 2 | 5 | 54 | 20·14 | 143 | 26 | 24·5 | 2 | 0·09 |
| 174 | 62 Orionis $\chi^2$ .. | 5·0 | . | 5 | 55 | 47·02 | 69 | 51 | 45·1 | 1 | 0·98 |
| 175 | .. | 9·3 | 2 | 5 | 56 | 7·47 | 129 | 57 | 12·8 | 2 | 0·09 |

156.—δ Orionis Var. 1.—Supposed to vary irregularly from 2·3 to 2·7 magnitude.
169.—α Orionis Var. 2.—(*Betelgeux*).—Irregularly variable from 1·0 to 1·5 magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 141 | 102 Tauri ι ... ... | + 3·5748 | + 0·0095 | + 0·004 | − 5·620 | + 0·503 | + 0·06 | 1551 |
| 142 | ... ... ... | + 1·9824 | + 0·0038 | ... | − 5·535 | + 0·280 | ... | |
| 143 | 1811 Taylor ... ... | + 1·9954 | + 0·0038 | ... | − 5·442 | + 0·282 | ... | 1561 |
| 144 | 1705 Lacaille ... | + 2·0101 | + 0·0037 | ... | − 5·411 | + 0·286 | .. | ... |
| 145 | 2 Leporis ε ... ... | + 2·5357 | + 0·0033 | + 0·001 | − 5·219 | + 0·359 | + 0·08 | 1575 |
| 146 | 15 Orionis ... ... | + 3·4290 | + 0·0074 | − 0·001 | − 5·033 | + 0·486 | − 0·03 | 1591 |
| 147 | .. .. ... | + 1·9110 | + 0·0106 | ... | − 4·681 | + 0·273 | ... | ... |
| 148 | 13 Aurigæ α ... ... | + 4·4121 | + 0·0173 | + 0·008 | − 4·633 | + 0·628 | + 0·43 | 1613 |
| 149 | .. ... ... | + 2·0145 | + 0·0035 | ... | − 4·611 | + 0·288 | | |
| 150 | 19 Orionis β ... ... | + 2·8804 | + 0·0040 | − 0·001 | − 4·515 | + 0·412 | + 0·02 | 1623 |
| 151 | ... ... ... | + 1·9866 | + 0·0035 | ... | − 4·099 | + 0·286 | .. | ... |
| 152 | 1822 Lacaille .. | + 1·4098 | + 0·0057 | ... | − 3·853 | + 0·204 | ... | . |
| 153 | 112 Tauri β ... ... | + 3·7852 | + 0·0082 | + 0·003 | − 3·686 | + 0·515 | + 0·20 | 1681 |
| 154 | ... .. ... ... | + 1·9696 | + 0·0034 | ... | − 3·596 | + 0·285 | .. | |
| 155 | .. .. ... ... | + 1·9251 | + 0·0035 | ... | − 3·506 | + 0·279 | ... | . |
| 156 | 34 Orionis δ Var. 1 | + 3·0626 | + 0·0038 | + 0·001 | − 3·050 | + 0·413 | + 0·04 | 1730 |
| 157 | 11 Leporis α .. | + 2·6411 | + 0·0029 | + 0·001 | − 2·905 | + 0·383 | 0·00 | 1741 |
| 158 | 46 Orionis ε | + 3·0421 | + 0·0035 | − 0·002 | − 2·682 | + 0·441 | + 0·01 | 1765 |
| 159 | 123 Tauri ζ . . | + 3·5822 | + 0·0055 | 0·000 | − 2·665 | + 0·519 | + 0·05 | 1767 |
| 160 | ... | + 2·0089 | + 0·0031 | . | − 2·480 | + 0·292 | ... | |
| 161 | . . | + 2·0089 | + 0·0030 | | − 2·387 | + 0·292 | . | |
| 162 | α Columbæ . | + 2·1706 | + 0·0027 | + 0·005 | − 2·211 | + 0·316 | + 0·05 | 1802 |
| 163 | 2113 Taylor | + 1·9264 | + 0·0031 | | − 2·174 | + 0·290 | | |
| 164 | . | + 1·9573 | + 0·0030 | | − 2·036 | + 0·285 | .. | ... |
| 165 | .. .. | + 1·9515 | + 0·0030 | .. | − 1·891 | + 0·284 | | .. |
| 166 | 1984 Lacaille | + 1·9440 | + 0·0030 | ... | − 1·690 | + 0·284 | .. | |
| 167 | 54 Orionis $\chi^1$ | + 3·5641 | + 0·0034 | | − 1·201 | + 0·520 | ... | 1876 |
| 168 | 2036 Lacaille | + 1·9605 | + 0·0028 | .. | − 1·198 | + 0·286 | ... | |
| 169 | 58 Orionis α Var. 2 | + 3·2449 | + 0·0028 | + 0·001 | − 1·070 | + 0·467 | 0·00 | 1883 |
| 170 | | + 1·9501 | + 0·0027 | | − 0·912 | + 0·284 | .. | .. |
| 171 | | + 1·9687 | + 0·0026 | .. | − 0·643 | + 0·257 | ... | |
| 172 | . | + 1·9053 | + 0·0026 | .. | − 0·590 | + 0·278 | .. | |
| 173 | 2101 Lacaille | + 1·2694 | + 0·0073 | | − 0·496 | + 0·199 | | . |
| 174 | 62 Orionis $\chi^2$ | + 3·56.3 | + 0·0022 | | − 0·369 | + 0·519 | ... | 1939 |
| 175 | | + 1·9521 | + 0·0025 | .. | − 0·310 | + 0·285 | .. | |

145.—Proper Motions adopted from "*Greenwich Catalogue*."
162.—Proper Motions adopted from "*Stone's Catalogue*."

*Mean Positions of Stars for 1863 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. h. | m. | s. | Mean Polar Distance. ° | ′ | ″ | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 176 | 2301 Taylor .. ... | 6·3 | 1 | 5 | 58 | 28·90 | 148 | 6 | 20·5 | 1 | 0·95 |
| 177 | . .. .. .. | 8·2 | 1 | 5 | 59 | 38·02 | 129 | 49 | 47·9 | 2 | 0·51 |
| 178 | 67 Orionis ν . .. | 5·0 | ... | 5 | 59 | 44·99 | 75 | 13 | 7·5 | 12 | 0·09 |
| 179 | ... ... ... .. | 8·8 | 2 | 6 | 3 | 37·31 | 129 | 58 | 11·0 | 2 | 0·14 |
| 180 | .. ... ... .. | 7·4 | 2 | 6 | 4 | 20·20 | 128 | 2 | 33·6 | 2 | 0·12 |
| 181 | 7 Geminorum η Var. 6 ... | 3·5 | ... | 6 | 6 | 36·42 | 67 | 27 | 26·8 | 3 | 0·63 |
| 182 | ... .. ... ... | 9·0 | 1 | 6 | 8 | 47·72 | 131 | 54 | 43·0 | 2 | 0·08 |
| 183 | ... ... ... ... | 9·0 | ... | 6 | 8 | 51·34 | 130 | 31 | 34·1 | 1 | 0·13 |
| 184 | 13 Geminorum μ ... ... | 3·0 | ... | 6 | 14 | 40·38 | 67 | 25 | 11·7 | 7 | 0·22 |
| 185 | ... .. .. .. | 9·4 | 2 | 6 | 21 | 54·56 | 129 | 36 | 27·5 | 2 | 0·14 |
| 186 | 2524 Taylor ... ... | 7·5 | 1 | 6 | 23 | 26·01 | 131 | 3 | 1·3 | 1 | 0·08 |
| 187 | 24 Geminorum γ ... ... | 2·3 | ... | 6 | 29 | 47·81 | 73 | 29 | 14·6 | 12 | 0·14 |
| 188 | .. .. .. . | 9·0 | 2 | 6 | 31 | 24·39 | 140 | 0 | 9·3 | 2 | 0·05 |
| 189 | ... .. . .. | 9·0 | 2 | 6 | 33 | 51·92 | 130 | 54 | 14·3 | 2 | 0·09 |
| 190 | ... ... .. ... | 7·7 | 1 | 6 | 34 | 28·58 | 130 | 27 | 51·9 | 1 | 0·15 |
| 191 | 51 Cephei (*Hev.*) ... .. | 5·3 | ... | 6 | 35 | 8·54 | 2 | 45 | 16·3 | 8 | 0·10 |
| 192 | ... ... ... .. | 8·9 | 2 | 6 | 36 | 11·08 | 130 | 20 | 57·4 | 2 | 0·12 |
| 193 | 31 Geminorum ξ ... | 3·7 | ... | 6 | 37 | 35·89 | 76 | 57 | 36·2 | 2 | 0·16 |
| 194 | 9 Can. Maj. α (*Sirius*) ... | 1·0 | ... | 6 | 39 | 6·56 | 106 | 32 | 51·7 | 1 | 0·01 |
| 195 | ... ... ... | 8·9 | 2 | 6 | 42 | 21·47 | 130 | 56 | 52·0 | 2 | 0·15 |
| 196 | .. .. .. .. | 8·8 | 2 | 6 | 43 | 38·68 | 128 | 30 | 19·6 | 2 | 0·07 |
| 197 | 2724 Taylor ... ... | 8·9 | 2 | 6 | 44 | 52·12 | 144 | 35 | 58·6 | 2 | 0·08 |
| 198 | 2500 Lacaille .. ... | 7·8 | 1 | 6 | 46 | 57·71 | 130 | 23 | 14·8 | 1 | 0·16 |
| 199 | 2516 Lacaille ... | 8·2 | 1 | 6 | 48 | 21·53 | 130 | 31 | 34·6 | 2 | 0·14 |
| 200 | .. .. ... ... | 9·3 | 1 | 6 | 49 | 40·68 | 129 | 8 | 13·8 | 1 | 0·15 |
| 201 | 21 Canis Majoris ε . | 1·7 | . | 6 | 53 | 14·53 | 118 | 47 | 16·6 | 6 | 0·09 |
| 202 | .. .. .. .. | 9·0 | 1 | 6 | 53 | 45·82 | 129 | 47 | 27·6 | 1 | 0·15 |
| 203 | 2805 Taylor .. . | 7·6 | 1 | 6 | 55 | 55·22 | 69 | 12 | 25·2 | 1 | 0·12 |
| 204 | 43 Gem. 3ª Var. 1 .. | 4·0 | .. | 6 | 55 | 58·86 | 69 | 13 | 56·7 | 4 | 0·31 |
| 205 | 23 Canis Majoris γ | 4·5 | .. | 6 | 57 | 33·63 | 105 | 26 | 0·6 | 7 | 0·14 |
| 206 | R Geminorum Var. 2 . | 7·7 | 3 | 6 | 59 | 0·33 | 67 | 5 | 20·3 | 3 | 0·05 |
| 207 | | 9·0 | 1 | 6 | 59 | 8·11 | 66 | 59 | 50·1 | 1 | 0·04 |
| 208 | . | 7·8 | 1 | 6 | 59 | 47·20 | 129 | 42 | 59·4 | 1 | 0·15 |
| 209 | 2851 Taylor .. .. | 7·8 | 1 | 7 | 0 | 48·71 | 145 | 44 | 43·8 | 1 | 0·19 |
| 210 | R Canis Minoris Var. 1 . | 8·4 | 3 | 7 | 1 | 10·40 | 79 | 43 | 46·5 | 3 | 0·11 |

181.—η Geminorum Var. 6. Period, 229 days.—Range, 3rd to 4th. magnitude
204.—3 Geminorum Var 1.—Period, 10·16 days.—Range, 3·7 to 4·5 magnitude.
206.—R Geminorum Var. 2.—Period, 371 days.—Range, 7th magnitude to invisibility.
210.—R Canis Minoris Var. 1.—Period, 335 days.—Range, 7·5 to 11th. magnitude

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | ″ | ″ | ″ | |
| 176 | 2301 Taylor . . | + 0·9235 | + 0·0030 | . . | − 0·132 | + 0·135 | ... | 1954 |
| 177 | ... ... . | + 1·9568 | + 0·0024 | ... | − 0·031 | + 0·285 | ... | . . |
| 178 | 67 Orionis ν .. .. | + 3·4248 | + 0·0017 | + 0·001 | − 0·022 | + 0·500 | + 0·02 | 1958 |
| 179 | ... .. | + 1·9515 | + 0·0023 | ... | + 0·317 | + 0·285 | ... | ... |
| 180 | ... . | + 2·0261 | + 0·0023 | ... | + 0·379 | + 0·296 | ... | ... |
| 181 | 7 Gem. η Var. 6 ... | + 3·6267 | + 0·0007 | − 0·007 | + 0·578 | + 0·529 | + 0·02 | 2002 |
| 182 | ... .. .. | + 1·8728 | + 0·0021 | ... | + 0·769 | + 0·273 | ... | ... |
| 183 | ... .. .. | + 1·9300 | + 0·0021 | ... | + 0·774 | + 0·281 | ... | ... |
| 184 | 13 Geminorum μ .. | + 3·6268 | − 0·0003 | + 0·005 | + 1·283 | + 0·527 | + 0·14 | 2047 |
| 185 | ... — .. | + 1·9707 | + 0·0018 | ... | + 1·914 | + 0·285 | ... | ... |
| 186 | 2524 Taylor ... . | + 1·9138 | + 0·0018 | ... | + 2·047 | + 0·277 | ... | ... |
| 187 | 24 Geminorum γ .. | + 3·4650 | − 0·0015 | + 0·001 | + 2·600 | + 0·500 | + 0·04 | 2163 |
| 188 | ... ... .. | + 1·4935 | + 0·0007 | ... | + 2·740 | + 0·215 | ... | ... |
| 189 | ... ... ... | + 1·9264 | + 0·0015 | ... | + 2·953 | + 0·277 | ... | ... |
| 190 | ... ... .. | + 1·9445 | + 0·0015 | ... | + 3·006 | + 0·280 | ... | ... |
| 191 | 51 Cephei (*Hev.*) .. | + 30·5365 | − 1·8025 | − 0·027 | + 3·063 | + 4·400 | + 0·08 | 2157 |
| 192 | ... ... ... | + 1·9503 | + 0·0014 | ... | + 3·154 | + 0·280 | ... | ... |
| 193 | 31 Geminorum ξ .. | + 3·3776 | − 0·0016 | − 0·007 | + 3·275 | + 0·485 | + 0·22 | 2206 |
| 194 | 9 Can. Maj. α ... | + 2·6808 | + 0·0010 | − 0·035 | + 3·405 | + 0·384 | + 1·24 | 2213 |
| 195 | ... ... .. | + 1·9317 | + 0·0013 | .. | + 3·686 | + 0·275 | ... | ... |
| 196 | .. ... ... | + 2·0276 | + 0·0013 | ... | + 3·796 | + 0·288 | .. | ... |
| 197 | 2724 Taylor ... .. | + 1·2267 | − 0·0030 | ... | + 3·901 | + 0·173 | ... | ... |
| 198 | 2500 Lacaille... ... | + 1·9585 | + 0·0012 | ... | + 4·061 | + 0·278 | ... | ... |
| 199 | 2516 Lacaille .. | + 1·9545 | + 0·0012 | ... | + 4·201 | + 0·277 | ... | . |
| 200 | ... . . .. | + 2·0095 | + 0·0013 | ... | + 4·313 | + 0·284 | ... | ... |
| 201 | 21 Can. Maj. ε ... | + 2·3570 | + 0·0013 | 0·000 | + 4·617 | + 0·332 | + 0·02 | 2293 |
| 202 | ... ... .. | + 1·9890 | + 0·0012 | ... | + 4·662 | + 0·281 | .. | ... |
| 203 | 2805 Taylor ... . | + 3·5647 | − 0·0050 | ... | + 4·849 | + 0·502 | . . | ... |
| 204 | 43 Gem. 3ᵃ Var. 1 .. | + 3·5641 | − 0·0070 | − 0·001 | + 4·850 | + 0·503 | + 0·01 | 2305 |
| 205 | 23 Can. Maj. γ ... | + 2·7144 | + 0·0005 | + 0·002 | + 4·984 | + 0·381 | + 0·01 | 2319 |
| 206 | R Gem. Var. 2 | + 3·6184 | − 0·0059 | ... | + 5·115 | + 0·508 | ... | ... |
| 207 | ... .. ... | + 3·6209 | − 0·0059 | ... | + 5·118 | + 0·509 | ... | ... |
| 208 | . .. .. | + 1·9990 | + 0·0011 | . . | + 5·173 | + 0·280 | . | .. |
| 209 | 2851 Taylor ... .. | + 1·1774 | − 0·0033 | ... | + 5·259 | + 0·164 | . | ... |
| 210 | R Can. Min. Var. 1 | + 3·3050 | − 0·0031 | ... | + 5·290 | + 0·463 | ... | ... |

178.—191.—193.—Proper Motions adopted from "*Greenwich Catalogue.*"

*Mean Positions of Stars for 1863 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 211 | ... ... ... | 9·0 | 1 | 7 | 4 | 55·62 | 130 | 42 | 26·1 | 1 | 0·20 |
| 212 | 2899 Taylor ... ... | 8·3 | 1 | 7 | 5 | 45·64 | 130 | 8 | 42·2 | 1 | 0·10 |
| 213 | ... ... ... ... | 9·0 | 1 | 7 | 5 | 49·92 | 129 | 23 | 7·9 | 1 | 0·16 |
| 214 | ... ... ... ... | 7·3 | 1 | 7 | 6 | 36·63 | 129 | 2 | 39·0 | 1 | 0·15 |
| 215 | 2696 Lacaille ... .. | 8 4 | 2 | 7 | 9 | 20 62 | 140 | 58 | 45·6 | 2 | 0·09 |
| 216 | 2940 Taylor ... ... | 8·5 | 1 | 7 | 9 | 26·25 | 129 | 57 | 35·9 | 1 | 0·06 |
| 217 | 54 Geminorum λ ... ... | 4·3 | ... | 7 | 10 | 13·09 | 73 | 12 | 57·4 | 1 | 0·90 |
| 218 | ... ... ... ... | 9·5 | 1 | 7 | 10 | 14·44 | 131 | 52 | 5·3 | 1 | 0·20 |
| 219 | 55 Geminorum δ ... ... | 3·3 | ... | 7 | 11 | 56·31 | 67 | 46 | 8·7 | 17 | 0·14 |
| 220 | ... ... ... ... | 9·5 | 1 | 7 | 12 | 59·12 | 129 | 15 | 51·3 | 1 | 0·16 |
| 221 | ... ... ... ... | 8·0 | 1 | 7 | 14 | 28·97 | 138 | 49 | 29·4 | 1 | 0·20 |
| 222 | ... .. ... .. | 8·7 | 2 | 7 | 17 | 22 77 | 129 | 13 | 19·5 | 2 | 0·09 |
| 223 | ... ... ... .. | 9·7 | 2 | 7 | 18 | 1·88 | 129 | 42 | 28·0 | 2 | 0·15 |
| 224 | 3043 Taylor ... ... | 7·1 | 2 | 7 | 19 | 11·34 | 129 | 16 | 18·9 | 2 | 0·15 |
| 225 | 2807 Lacaille ... ... | 8 0 | 1 | 7 | 19 | 31·07 | 142 | 15 | 14 6 | 2 | 0·09 |
| 226 | ... ... ... ... | 9·0 | 1 | 7 | 19 | 33·48 | 123 | 7 | 52·1 | 1 | 0·21 |
| 227 | ... ... ... ... | 7·0 | 1 | 7 | 21 | 32·00 | 131 | 50 | 19·2 | 1 | 0·20 |
| 228 | S Canis Minoris Var. 2 ... | 9·8 | 3 | 7 | 25 | 16·94 | 81 | 23 | 34·4 | 3 | 0·14 |
| 229 | 68 Geminorum ... ... | 6·5 | 1 | 7 | 25 | 47·23 | 73 | 52 | 54·7 | 2 | 0·11 |
| 230 | 66 Gem. α² (*Castor*) ... | 1·7 | ... | 7 | 25 | 51·25 | 57 | 48 | 53·8 | 12 | 0·15 |
| 231 | ... ... ... ... | 9·0 | 1 | 7 | 26 | 2·73 | 142 | 5 | 45·3 | 1 | 0·05 |
| 232 | ... ... ... .. | 9·2 | 1 | 7 | 26 | 46·17 | 123 | 7 | 15·0 | 1 | 0·21 |
| 233 | 3126 Taylor ... ... | 7·5 | 1 | 7 | 29 | 32·74 | 143 | 15 | 35·0 | 1 | 0·03 |
| 234 | 10 Can. Min. α (*Procyon*)., | 1·0 | ... | 7 | 32 | 7·72 | 84 | 25 | 37·3 | 15 | 0·16 |
| 235 | 2893 Lacaille ... ... | 8·0 | 1 | 7 | 32 | 41·06 | 121 | 49 | 18·1 | 1 | 0·04 |
| 236 | 2910 Lacaille ... ... | 8·5 | 1 | 7 | 33 | 16·04 | 143 | 52 | 47·6 | 1 | 0·05 |
| 237 | ... ... ... .. | 8·5 | 1 | 7 | 35 | 27·60 | 144 | 10 | 34·5 | 1 | 0·05 |
| 238 | 78 Gem. β (*Pollux*) ... | 1·3 | .. | 7 | 36 | 55·73 | 61 | 38 | 47·2 | 10 | 0·15 |
| 239 | ... ... ... .. | 7·5 | 2 | 7 | 37 | 44·51 | 128 | 52 | 45·3 | 2 | 0·03 |
| 240 | 81 Geminorum *g* ... .. | 5·0 | ... | 7 | 38 | 11·35 | 71 | 9 | 33·0 | 2 | 0·12 |
| 241 | 2971 Lacaille ... ... | 7·5 | 1 | 7 | 40 | 16·90 | 143 | 54 | 47·6 | 1 | 0·05 |
| 242 | T Geminorum Var. 4 .. | 8·3 | 2 | 7 | 41 | 4·50 | 65 | 55 | 40·7 | 2 | 0·09 |
| 243 | ... .. .. ... | 8·0 | 1 | 7 | 41 | 30·83 | 144 | 18 | 31·0 | 1 | 0·06 |
| 244 | 3013 Lacaille ... .. | 7·0 | 1 | 7 | 43 | 27·42 | 142 | 0 | 32·0 | 1 | 0·03 |
| 245 | 40 R. P. L. ... ... | 6·5 | ... | 7 | 43 | 39·66 | 5 | 33 | 32·7 | 1 | 0·09 |

228.—S Canis Minoris Var. 2.—Period 332 days.—Range, 7·5 magnitude to invisibility.
242.—T. Geminorum Var. 4.—Period 288 days.—Range, 8·5 magnitude to invisibility.
245.—1359 Groombridge.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 211 | ... ... .. | + 1·9676 | + 0·0009 | ... | + 5·606 | + 0·274 | ... | .. |
| 212 | 2899 Taylor ... .. | + 1·9905 | + 0·0009 | ... | + 5·676 | + 0·277 | ... | ... |
| 213 | ... ... .. | + 2·0193 | + 0·0010 | ... | + 5·682 | + 0·280 | . | ... |
| 214 | ... ... ... | + 2·0332 | + 0·0010 | ... | + 5·748 | + 0·282 | ... | ... |
| 215 | 2696 Lacaille ... | + 1·4971 | − 0·0018 | ... | + 5·976 | + 0·205 | ... | ... |
| 216 | 2940 Taylor... ... | + 2·0028 | + 0·0010 | ... | + 5·984 | + 0·276 | ... | ... |
| 217 | 54 Geminorum λ ... | + 3·4566 | − 0·0055 | ... | + 6·049 | + 0·602 | ... | 2398 |
| 218 | ... ... .. | + 1·9296 | + 0·0007 | ... | + 6·050 | + 0·265 | ... | ... |
| 219 | 55 Geminorum δ .. | + 3·5918 | − 0·0072 | 0·000 | + 6·193 | + 0·495 | + 0·02 | 2410 |
| 220 | .. ... .. | + 2·0311 | + 0·0009 | ... | + 6·280 | + 0·279 | ... | ... |
| 221 | ... ... ... | + 1·6234 | − 0·0008 | ... | + 6·403 | + 0·221 | ... | ... |
| 222 | ... ... ... | + 2·0124 | + 0·0009 | ... | + 6·644 | + 0·278 | ... | ... |
| 223 | ... ... ... | + 2·0255 | + 0·0010 | ... | + 6·697 | + 0·276 | ... | ... |
| 224 | 3043 Taylor ... .. | + 2·0435 | + 0·0009 | ... | + 6·792 | + 0·277 | ... | .. |
| 225 | 2807 Lacaille . | + 1·4480 | − 0·0023 | ... | + 6·819 | + 0·196 | ... | ... |
| 226 | ... .. .. | + 2·2515 | + 0·0013 | ... | + 6·823 | + 0·304 | ... | ... |
| 227 | ... ... .. | + 1·9500 | + 0·0006 | .. | + 6·985 | + 0·264 | ... | ... |
| 228 | 8 Can. Min. Var. 2 .. | + 3·2606 | − 0·0044 | ... | + 7·293 | + 0·440 | ... | ... |
| 229 | 68 Geminorum .. | + 3·4317 | − 0·0066 | − 0·004 | + 7·333 | + 0·463 | 0·00 | 2486 |
| 230 | 66 Geminorum α² ... | + 3·8551 | − 0·0133 | − 0·013 | + 7·339 | + 0·519 | + 0·08 | 2485 |
| 231 | ... ... .. | + 1·4744 | − 0·0021 | ... | + 7·354 | + 0·197 | ... | .. |
| 232 | ... ... ... | + 2·2616 | + 0·0011 | ... | + 7·413 | + 0·303 | ... | . |
| 233 | 3126 Taylor ... | + 1·4160 | − 0·0032 | ... | + 7·638 | + 0·188 | .. | 2507 |
| 234 | 10 Can. Min. α .. | + 3·1020 | − 0·0041 | − 0·048 | + 7·846 | + 0·423 | + 1·08 | 2522 |
| 235 | 2893 Lacaille .. | + 2·3094 | + 0·0012 | ... | + 7·891 | + 0·307 | . | .. |
| 236 | 2910 Lacaille .. | + 1·3896 | − 0·0037 | ... | + 7·938 | + 0·183 | ... | ... |
| 237 | ... ... .. | + 1·3618 | − 0·0041 | ... | + 8·114 | + 0·179 | ... | .. |
| 238 | 78 Geminorum β ... | + 3·7299 | − 0·0128 | − 0·040 | + 8·231 | + 0·491 | + 0·06 | 2535 |
| 239 | ... . .. | + 2·0906 | + 0·0010 | ... | + 8·297 | + 0·274 | ... | ... |
| 240 | 81 Geminorum ρ .. | + 3·4871 | − 0·0086 | − 0·008 | + 8·332 | + 0·459 | + 0·05 | 2558 |
| 241 | 2971 Lacaille .. | + 1·4105 | − 0·0038 | ... | + 8·499 | + 0·182 | ... | .. |
| 242 | T Gem. Var. 4 .. | + 3·6122 | − 0·0110 | ... | + 8·561 | + 0·472 | ... | .. |
| 243 | ... ... .. | + 1·3004 | − 0·0041 | .. | + 8·596 | + 0·179 | .. | ... |
| 244 | 3013 Lacaille .. | + 1·5317 | − 0·0026 | ... | + 8·749 | + 0·197 | .. | ... |
| 245 | 49 R. P. I. ... | + 15·4282 | − 1·2094 | .. | + 8·765 | + 2·030 | .. | 2585 |

*Mean Positions of Stars for 1863 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 246 | ... | 8·0 | 1 | 7 | 45 | 4·57 | 120 | 24 | 42·4 | 2 | 0·08 |
| 247 | 1791 Brisbane | 8·0 | 1 | 7 | 46 | 17·14 | 144 | 24 | 30·2 | 1 | 0·05 |
| 248 | 3293 Taylor | 8·0 | 1 | 7 | 46 | 29·16 | 144 | 43 | 55·7 | 1 | 0·05 |
| 249 | ... | 9·1 | 1 | 7 | 48 | 56·74 | 130 | 25 | 52·3 | 1 | 0·15 |
| 250 | 1 Cancri | 6·0 | ... | 7 | 49 | 12·66 | 73 | 50 | 48·4 | 1 | 0·09 |
| 251 | ... | 8·5 | 2 | 7 | 49 | 49·19 | 120 | 17 | 12·9 | 2 | 0·06 |
| 252 | ... | 9·0 | ... | 7 | 50 | 2·96 | 129 | 38 | 16·1 | 1 | 0·13 |
| 253 | 3330 Taylor | 8·0 | 1 | 7 | 51 | 48·84 | 144 | 16 | 45·2 | 1 | 0·05 |
| 254 | ... | 9·0 | 1 | 7 | 52 | 52·87 | 144 | 41 | 20·7 | 1 | 0·05 |
| 255 | 6 Cancri | 6·0 | 1 | 7 | 55 | 5·99 | 61 | 49 | 30·0 | 9 | 0·16 |
| 256 | 3373 Taylor | 8·0 | 1 | 7 | 55 | 12·34 | 144 | 11 | 41·1 | 1 | 0·06 |
| 257 | ... | 8·0 | 1 | 7 | 55 | 17·98 | 128 | 30 | 1·7 | 2 | 0·08 |
| 258 | ... | 9·5 | 1 | 7 | 56 | 29·84 | 129 | 21 | 9·1 | 1 | 0·06 |
| 259 | 15 Argus ρ | 3·0 | ... | 8 | 1 | 42·66 | 113 | 54 | 41·6 | 6 | 0·15 |
| 260 | ... | 9·7 | 1 | 8 | 1 | 59·94 | 113 | 46 | 37·3 | 1 | 0·20 |
| 261 | ... | 9·2 | 2 | 8 | 2 | 9·72 | 123 | 39 | 16·3 | 2 | 0·10 |
| 262 | 16 Cancri ζ | 5·5 | ... | 8 | 4 | 20·91 | 71 | 56 | 29·8 | 1 | 0·01 |
| 263 | ... | 8·3 | 1 | 8 | 5 | 17·17 | 130 | 45 | 12·2 | 1 | 0·13 |
| 264 | R Cancri Var. 1 | 7·7 | 3 | 8 | 9 | 0·61 | 77 | 51 | 21·7 | 3 | 0·09 |
| 265 | ... | 9·3 | 2 | 8 | 9 | 20·90 | 74 | 15 | 51·8 | 2 | 0·24 |
| 266 | ... | 9·3 | 1 | 8 | 9 | 51·95 | 74 | 16 | 2·7 | 1 | 0·21 |
| 267 | 16224 Lalande | 7·0 | 1 | 8 | 10 | 30·18 | 73 | 54 | 0·8 | 1 | 0·21 |
| 268 | ... | 8·3 | 1 | 8 | 12 | 15·14 | 128 | 43 | 30·2 | 1 | 0·12 |
| 269 | ... | 8·8 | 1 | 8 | 12 | 43·23 | 128 | 40 | 43·7 | 1 | 0·11 |
| 270 | ... | 9·3 | 1 | 8 | 12 | 53·61 | 131 | 17 | 0·3 | 1 | 0·13 |
| 271 | ... | 9·6 | 1 | 8 | 12 | 55·26 | 130 | 45 | 19·7 | 1 | 0·13 |
| 272 | ... | 9·5 | 1 | 8 | 13 | 40·21 | 133 | 17 | 7·4 | 1 | 0·20 |
| 273 | 20 Cancri $d^1$ | 6·3 | ... | 8 | 15 | 30·53 | 71 | 13 | 50·9 | 1 | 0·01 |
| 274 | ... | 9·0 | 1 | 8 | 17 | 21·94 | 141 | 15 | 41·3 | 1 | 0·04 |
| 275 | 3620 Taylor | 8·0 | 1 | 8 | 23 | 5·67 | 130 | 47 | 35·5 | 1 | 0·13 |
| 276 | ... | 8·8 | 2 | 8 | 23 | 30·08 | 128 | 35 | 23·8 | 2 | 0·11 |
| 277 | 31 Cancri θ | 5·3 | ... | 8 | 23 | 47·14 | 71 | 26 | 44·0 | 1 | 0·17 |
| 278 | 33 Cancri η | 5·7 | ... | 8 | 24 | 46·94 | 69 | 5 | 46·4 | 8 | 0·17 |
| 279 | 3651 Taylor | 7·7 | 1 | 8 | 25 | 37·47 | 130 | 3 | 8·0 | 1 | 0·13 |
| 280 | ... | 9·0 | 1 | 8 | 26 | 23·33 | 130 | 30 | 15·1 | 1 | 0·08 |

246.—R Cancri Var. 1.—Period 354 days.—Range, 6th to 12th magnitude.
265—266—267.—Comparison stars for Ariadne.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. Annual Precession. | In Right Ascension. Secular Variation. | In Right Ascension. Proper Motion. | In Polar Distance. Annual Precession. | In Polar Distance. Secular Variation. | In Polar Distance. Proper Motion. | Number in R. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | s | s | s | " | " | " | |
| 246 | ... ... ... | + 2·0868 | + 0·0010 | ... | + 8·876 | + 0·269 | ... | ... |
| 247 | 1791 Brisbane ... | + 1·4012 | − 0·0043 | ... | + 8·971 | + 0·179 | ... | ... |
| 248 | 3293 Taylor ... ... | + 1·3820 | − 0·0045 | ... | + 9·087 | + 0·176 | ... | ... |
| 249 | ... ... ... | + 2·0593 | + 0·0010 | ... | + 9·178 | + 0·263 | ... | ... |
| 250 | 1 Cancri ... ... | + 3·4162 | − 0·0084 | ... | + 9·199 | + 0·439 | ... | 2639 |
| 251 | ... ... ... | + 2·1015 | + 0·0011 | ... | + 9·247 | + 0·268 | ... | ... |
| 252 | ... ... .. | + 2·0896 | + 0·0011 | ... | + 9·264 | + 0·266 | ... | ... |
| 253 | 3339 Taylor ... .. | + 1·4297 | − 0·0041 | ... | + 9·401 | + 0·180 | ... | ... |
| 254 | ... ... ... | + 1·4097 | − 0·0053 | ... | + 9·484 | + 0·177 | ... | ... |
| 255 | 6 Cancri ... ... | + 3·6997 | − 0·0148 | − 0·005 | + 9·654 | + 0·468 | + 0·07 | 2672 |
| 256 | 3373 Taylor ... ... | + 1·4479 | − 0·0041 | ... | + 9·662 | + 0·181 | ... | ... |
| 257 | ... ... .. | + 2·1404 | + 0·0013 | ... | + 9·660 | + 0·270 | ... | ... |
| 258 | ... ... ... | + 2·1143 | + 0·0013 | ... | + 9·761 | + 0·265 | ... | ... |
| 259 | 15 Argus ρ ... ... | + 2·5608 | + 0·0009 | − 0·007 | + 10·157 | + 0·318 | − 0·06 | 2728 |
| 260 | ... ... ... | + 2·5615 | + 0·0009 | ... | + 10·178 | + 0·318 | ... | ... |
| 261 | ... ... .. | + 2·1510 | + 0·0015 | ... | + 10·191 | + 0·266 | ... | ... |
| 262 | 16 Cancri ζ ... ... | + 3·4454 | + 0·0103 | + 0·004 | + 10·355 | + 0·426 | + 0·11 | 2744 |
| 263 | ... ... .. | + 2·0877 | + 0·0013 | ... | + 10·426 | + 0·256 | ... | ... |
| 264 | R Cancri Var. 1 ... | + 3·3154 | − 0·0081 | ... | + 10·703 | + 0·406 | ... | ... |
| 265 | ... ... .. | + 3·3904 | − 0·0095 | ... | + 10·728 | + 0·413 | ... | ... |
| 266 | ... ... ... | + 3·3898 | − 0·0096 | ... | + 10·766 | + 0·412 | ... | ... |
| 267 | 16224 Lalande ... | + 3·3971 | − 0·0097 | ... | + 10·813 | + 0·412 | ... | ... |
| 268 | ... ... ... | + 2·1735 | + 0·0018 | ... | + 10·941 | + 0·261 | ... | ... |
| 269 | ... ... ... | + 2·1763 | + 0·0018 | ... | + 10·976 | + 0·261 | ... | ... |
| 270 | ... ... .. | + 2·0900 | + 0·0015 | ... | + 10·988 | + 0·250 | ... | ... |
| 271 | ... ... ... | + 2·1063 | + 0·0011 | ... | + 10·990 | + 0·252 | ... | ... |
| 272 | ... ... ... | + 2·0209 | + 0·0013 | ... | + 11·045 | + 0·241 | ... | ... |
| 273 | 20 Cancri d[1] ... .. | + 3·4493 | + 0·0114 | ... | + 11·179 | + 0·413 | ... | 2799 |
| 274 | ... ... ... | + 1·6961 | − 0·0014 | ... | + 11·313 | + 0·199 | ... | ... |
| 275 | 3620 Taylor ... .. | + 2·1360 | + 0·0020 | ... | + 11·728 | + 0·248 | ... | ... |
| 276 | ... ... ... | + 2·2059 | + 0·0023 | ... | + 11·752 | + 0·256 | ... | ... |
| 277 | 31 Cancri θ ... ... | + 3·4354 | − 0·0118 | − 0·006 | + 11·773 | + 0·401 | + 0·06 | 2853 |
| 278 | 33 Cancri η ... ... | + 3·4841 | − 0·0131 | − 0·005 | + 11·844 | + 0·403 | + 0·06 | 2862 |
| 279 | 3651 Taylor ... ... | + 2·1674 | + 0·0022 | ... | + 11·908 | + 0·240 | ... | ... |
| 280 | ... ... ... | + 2·1551 | + 0·0022 | ... | + 11·957 | + 0·247 | ... | ... |

*Mean Positions of Stars for* 1863 *January* 1*st*,

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 281 | ... ... ... ... | 8·4 | 2 | 8 | 30 | 11·71 | 128 | 46 | 55·5 | 2 | 0·12 |
| 282 | 3710 Taylor ... ... | 8·0 | 1 | 8 | 31 | 22·50 | 141 | 20 | 51·9 | 1 | 0·19 |
| 283 | ... .. ... ... | 8·7 | 2 | 8 | 33 | 7·27 | 129 | 23 | 15·0 | 2 | 0·23 |
| 284 | S Cancri Var. 2 ... ... | 8·5 | 4 | 8 | 36 | 6·39 | 70 | 28 | 32·6 | 4 | 0·13 |
| 285 | 3767 Taylor ... ... | 8·5 | 1 | 8 | 36 | 18·59 | 149 | 50 | 2·8 | 1 | 0·17 |
| 286 | 47 Cancri δ ... ... | 4·3 | ... | 8 | 36 | 53·81 | 71 | 20 | 42·0 | 1 | 0·09 |
| 287 | ... ... ... ... | 8·9 | 1 | 8 | 73 | 48·60 | 136 | 5 | 19·7 | 1 | 0·18 |
| 288 | 11 Hydræ ε ... ... | 3·5 | ... | 8 | 39 | 31·08 | 83 | 4 | 52·4 | 12 | 0·20 |
| 289 | ... ... ... ... | 8·3 | 1 | 8 | 40 | 27·06 | 129 | 15 | 20·5 | 1 | 0·23 |
| 290 | 60 R. P. L. ... ... | 6·5 | ... | 8 | 46 | 8·72 | 5 | 16 | 42·0 | 6 | 0·36 |
| 291 | S Hydræ Var. 3 ... ... | 10·2 | 3 | 8 | 46 | 25·20 | 86 | 24 | 59·2 | 3 | 0·23 |
| 292 | ... ... .. ... | 9·6 | 1 | 8 | 47 | 18·74 | 69 | 36 | 57·0 | 1 | 0·20 |
| 293 | 3886 Taylor ... ... | 8·0 | 1 | 8 | 48 | 12·00 | 136 | 52 | 39·3 | 1 | 0·18 |
| 294 | T Cancri Var. 3 ... ... | 9·4 | 3 | 8 | 48 | 50·44 | 69 | 37 | 45·1 | 3 | 0·19 |
| 295 | T Hydræ Var. 4 ... ... | 9·7 | 1 | 8 | 48 | 59·93 | 98 | 37 | 15·5 | 1 | 0·04 |
| 296 | ... ... ... ... | 7·5 | 1 | 8 | 49 | 11·22 | 132 | 54 | 6·3 | 1 | 0·20 |
| 297 | 65 Cancri α ... ... | 4·7 | ... | 8 | 50 | 59·61 | 77 | 36 | 51·7 | 3 | 0·12 |
| 298 | ... ... ... ... | 9·7 | 1 | 8 | 51 | 52·86 | 137 | 24 | 27·1 | 1 | 0·20 |
| 299 | ... ... ... ... | 8·8 | 2 | 8 | 54 | 18·15 | 130 | 34 | 38·1 | 2 | 0·19 |
| 300 | ... ... ... ... | 9·0 | 1 | 8 | 54 | 56·91 | 143 | 48 | 42·8 | 1 | 0·27 |
| 301 | 3941 Taylor ... ... | 8·8 | 1 | 8 | 54 | 57·63 | 144 | 6 | 8·7 | 1 | 0·27 |
| 302 | ... ... ... ... | 9·3 | 1 | 8 | 56 | 35·64 | 146 | 45 | 47·0 | 1 | 0·27 |
| 303 | ... ... ... ... | 9·6 | 1 | 8 | 56 | 40·93 | 129 | 17 | 57·0 | 1 | 0·22 |
| 304 | ... ... ... ... | 9·0 | 1 | 8 | 59 | 4·56 | 145 | 37 | 55·2 | 1 | 0·04 |
| 305 | 76 Cancri κ ... ... | 5·5 | ... | 9 | 0 | 19·65 | 78 | 46 | 57·7 | 2 | 0·00 |
| 306 | ... ... ... .. | 8·0 | 1 | 9 | 1 | 2·20 | 150 | 1 | 16·2 | 1 | 0·27 |
| 307 | ... ... ... ... | 7·7 | 2 | 9 | 1 | 47·83 | 128 | 56 | 55·1 | 2 | 0·20 |
| 308 | ... ... .. .. | 10·5 | 1 | 9 | 2 | 12·49 | 71 | 26 | 18·8 | 1 | 0·23 |
| 309 | ... ... ... .. | 9·3 | 1 | 9 | 4 | 21·47 | 130 | 29 | 24·9 | 2 | 0·15 |
| 310 | 3713 Lacaille ... ... | 7·8 | 1 | 9 | 4 | 32·87 | 143 | 48 | 57·5 | 1 | 0·28 |
| 311 | ... ... ... ... | 8·4 | 2 | 9 | 6 | 25·16 | 142 | 29 | 13·1 | 2 | 0·08 |
| 312 | ... ... ... ... | 8·9 | 1 | 9 | 6 | 28·70 | 138 | 41 | 16·6 | 1 | 0·17 |
| 313 | ... ... ... ... | 9·0 | 1 | 9 | 8 | 12·53 | 148 | 14 | 1·8 | 1 | 0·17 |
| 314 | ... ... ... ... | 10·3 | 2 | 9 | 9 | 21·57 | 73 | 52 | 24·7 | 2 | 0·19 |
| 315 | 83 Cancri ... . ... | 6·7 | ... | 8 | 11 | 19·87 | 71 | 42 | 58·2 | 13 | 0·19 |

284.—S Cancri Var. 2.—Period 9·48 days.—Range, 8th to 10·5 magnitude.
290.—1256 Carrington.
291.—S Hydræ Var. 3.—Period 256 days.—Range, 8th to 13th magnitude.
294.—T Cancri Var. 3.—Period 484 days.—Range, 8th to 10·5 magnitude.
295.—T Hydræ Var. 4.—Period 289 days.—Range, 7th to 12th magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 281 | ... ... .. | + 2·2203 | + 0·0026 | ... | + 12·222 | + 0·252 | ... | . |
| 282 | 3710 Taylor ... .. | + 1·7519 | − 0·0006 | ... | + 12·304 | + 0·197 | ... | ... |
| 283 | . ... | + 2·2103 | + 0·0026 | .. | + 12·424 | + 0·248 | . | ... |
| 284 | S Cancri Var. 2 .. | + 3·4404 | − 0·0130 | ... | + 12·628 | + 0·385 | ... | ... |
| 285 | 3767 Taylor ... .. | + 1·2862 | − 0·0059 | ... | + 12·642 | + 0·138 | ... | .. |
| 286 | 47 Cancri δ ... .. | + 3·4217 | − 0·0125 | − 0·002 | + 12·682 | + 0·382 | + 0·24 | 2953 |
| 287 | ... .. | + 1·9906 | + 0·0019 | ... | + 12·743 | + 0·220 | ... | ... |
| 288 | 11 Hydræ ε ... .. | + 3·1965 | − 0·0071 | − 0·013 | + 12·859 | + 0·351 | + 0·04 | 2971 |
| 289 | ... ... . | + 2·2364 | + 0·0031 | ... | + 12·921 | + 0·244 | .. | ... |
| 290 | 60 R. P. L. ... ... | + 13·9054 | − 1·7357 | ... | + 13·298 | + 1·512 | ... | ... |
| 291 | S Hydræ Var. 3 . | + 3·1347 | − 0·0059 | ... | + 13·310 | + 0·336 | ... | ... |
| 292 | .. ... .. | + 3·4423 | − 0·0140 | ... | + 13·374 | + 0·308 | ... | ... |
| 293 | 3886 Taylor ... .. | + 2·0120 | + 0·0025 | ... | + 13·433 | + 0·212 | ... | ... |
| 294 | T Cancri Var. 3 ... | + 3·4398 | − 0·0141 | ... | + 13·475 | + 0·366 | ... | ... |
| 295 | T Hydræ Var. 4 ... | + 2·9220 | − 0·0018 | ... | + 13·485 | + 0·309 | ... | .. |
| 296 | ... .. .. | + 2·1530 | + 0·0033 | ... | + 13·496 | + 0·226 | ... | ... |
| 297 | 65 Cancri α ... ... | + 3·2877 | − 0·0098 | 0·000 | + 13·613 | + 0·346 | + 0·04 | 3055 |
| 298 | ... ... . | + 2·0079 | + 0·0027 | ... | + 13·670 | + 0·208 | ... | ... |
| 299 | ... ... ... | + 2·2426 | + 0·0039 | ... | + 13·824 | + 0·231 | ... | .. |
| 300 | ... .. | + 1·7987 | + 0·0005 | ... | + 13·864 | + 0·184 | ... | .. |
| 301 | 3941 Taylor .. ... | + 1·7375 | − 0·0003 | ... | + 13·866 | + 0·177 | ... | ... |
| 302 | .. ... .. | + 1·6080 | − 0·0026 | ... | + 13·970 | + 0·162 | ... | ... |
| 303 | ... ... .. | + 2·2872 | + 0·0040 | ... | + 13·974 | + 0·233 | ... | .. |
| 304 | ... ... .. | + 1·6840 | − 0·0010 | ... | + 14·124 | + 0·168 | ... | .. |
| 305 | 76 Cancri κ ... ... | + 3·2593 | − 0·0094 | − 0·002 | + 14·201 | + 0·335 | 0·00 | 3111 |
| 306 | ... .. . | + 1·1405 | − 0·0062 | ... | + 14·245 | + 0·142 | ... | ... |
| 307 | .. .. ... | + 2·3140 | + 0·0044 | ... | + 14·292 | + 0·231 | ... | ... |
| 308 | . .. .. | + 3·3865 | + 0·0133 | ... | + 14·317 | + 0·340 | ... | ... |
| 309 | ... ... . | + 2·2804 | + 0·0047 | ... | + 14·448 | + 0·225 | ... | ... |
| 310 | 3713 Lacaille .. | + 1·8055 | + 0·0010 | ... | + 14·460 | + 0·176 | ... | . |
| 311 | . . ... | + 1·8755 | + 0·0022 | ... | + 14·573 | + 0·182 | ... | ... |
| 312 | .. ... .. | + 2·0272 | + 0·0037 | ... | + 14·576 | + 0·197 | .. | ... |
| 313 | ... ... . | + 1·6009 | − 0·0025 | ... | + 14·680 | + 0·153 | .. | .. |
| 314 | . ... ... | + 3·3335 | + 0·0019 | .. | + 14·748 | + 0·324 | .. | .. |
| 315 | 83 Cancri ... ... | + 3·3685 | − 0·0134 | − 0·012 | + 14·864 | + 0·323 | + 0·16 | 3171 |

*Mean Positions of Stars for 1863 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 316 | ... ... ... ... | 8·5 | ... | 9 | 11 | 46·21 | 130 | 44 | 53·2 | 1 | 0·15 |
| 317 | ... ... ... ... | 8·9 | 3 | 9 | 14 | 32·62 | 24 | 50 | 14·1 | 3 | 0·12 |
| 318 | ... ... ... ... | 9·2 | 1 | 9 | 15 | 13·69 | 143 | 43 | 26·1 | 1 | 0·28 |
| 319 | .. ... ... ... | 9·2 | 2 | 9 | 15 | 49·94 | 25 | 4 | 11·1 | 2 | 0·13 |
| 320 | ... ... ... .. | 9·0 | 1 | 9 | 16 | 3·99 | 140 | 7 | 19·9 | 1 | 0·17 |
| 321 | ... ... ... ... | 9·5 | 1 | 9 | 16 | 15·59 | 139 | 0 | 47·4 | 1 | 0·17 |
| 322 | 9881 O. A. N ... ... | 9·3 | 1 | 9 | 17 | 32·56 | 25 | 3 | 29·2 | 1 | 0·20 |
| 323 | 30 Hydræ α Var. 1 ... | 2·3 | ... | 9 | 20 | 51·25 | 98 | 4 | 0·1 | 13 | 0·23 |
| 324 | 2 Leonis ω .. ... ... | 6·0 | ... | 9 | 21 | 7·29 | 80 | 10 | 56·3 | 1 | 0·17 |
| 325 | 3853 Lacaille ... ... | 8·0 | 1 | 9 | 22 | 29·81 | 131 | 59 | 2·0 | 1 | 0·21 |
| 326 | ... ... ... .. | 9·1 | 3 | 9 | 24 | 30·42 | 130 | 25 | 54·0 | 3 | 0·18 |
| 327 | 6 Leonis h ... ... .. | 6·0 | 1 | 9 | 24 | 36·20 | 79 | 40 | 54·5 | 1 | 0·32 |
| 328 | 3886 Lacaille ... ... | 8·0 | 1 | 9 | 24 | 41·23 | 141 | 49 | 33·3 | 1 | 0·17 |
| 329 | 3887 Lacaille ... ... | 8·0 | 1 | 9 | 24 | 53·13 | 140 | 0 | 16·9 | 1 | 0·17 |
| 330 | ... ... ... ... | 9·0 | 1 | 9 | 26 | 53·60 | 144 | 57 | 51·3 | 1 | 0·18 |
| 331 | ... ... ... ... | 8·8 | 1 | 9 | 28 | 52·41 | 128 | 46 | 39·2 | 1 | 0·22 |
| 332 | ... ... ... .. | 8·0 | 1 | 9 | 28 | 58·85 | 128 | 49 | 16·2 | 1 | 0·23 |
| 333 | 10 Leonis ... ... ... | 5·5 | ... | 9 | 29 | 58·49 | 82 | 33 | 6·7 | 2 | 0·09 |
| 334 | 4259 Taylor ... ... | 5·0 | 1 | 9 | 31 | 55·33 | 138 | 44 | 31·9 | 1 | 0·18 |
| 335 | ... ... ... ... | 8·7 | 1 | 9 | 32 | 25·09 | 129 | 53 | 36·6 | 1 | 0·23 |
| 336 | 69 R. P. L. ... .. | 8·0 | ... | 9 | 32 | 32·26 | 2 | 46 | 30·6 | 1 | 0·81 |
| 337 | ... ... ... ... | 8·2 | 1 | 9 | 32 | 51·36 | 129 | 47 | 14·2 | 1 | 0·15 |
| 338 | 14 Leonis ο ... ... | 4·0 | ... | 9 | 33 | 50·25 | 79 | 29 | 10·3 | 4 | 0·15 |
| 339 | ... ... ... ... | 9·0 | ... | 9 | 34 | 41·56 | 130 | 34 | 22·9 | 1 | 0·15 |
| 340 | 4280 Taylor ... .. | 8·0 | 1 | 9 | 34 | 42·40 | 142 | 19 | 28·7 | 1 | 0·17 |
| 341 | 17 Leonis ε ... .. | 3·0 | ... | 9 | 38 | 4·16 | 65 | 35 | 49·1 | 12 | 0·22 |
| 342 | R Leonis Var. 1 ... .. | 8·6 | 4 | 9 | 40 | 11·14 | 77 | 56 | 16·3 | 5 | 0·20 |
| 343 | ... .. .. .. | 8·0 | 1 | 9 | 42 | 39·64 | 130 | 47 | 31·0 | 1 | 0·15 |
| 344 | ... ... ... ... | 8·9 | 1 | 9 | 43 | 22·16 | 143 | 45 | 37·4 | 1 | 0·17 |
| 345 | ... ... ... .. | 8·0 | 1 | 9 | 44 | 3·77 | 147 | 1 | 19·8 | 1 | 0·19 |
| 346 | .. . ... .. | 9·3 | 1 | 9 | 45 | 53·44 | 129 | 2 | 34·2 | 1 | 0·23 |
| 347 | 70 R. P. L. .. .. | 6·5 | ... | 9 | 46 | 7·38 | 5 | 25 | 32·0 | 6 | 0·22 |
| 348 | 4402 Taylor .. .. | 7·4 | 2 | 9 | 49 | 50·89 | 129 | 47 | 13·5 | 2 | 0·20 |
| 349 | 29 Leonis π . | 5·0 | ... | 9 | 52 | 58·29 | 81 | 18 | 0·3 | 13 | 0·23 |
| 350 | . .. .. | 8·0 | 1 | 9 | 55 | 49·57 | 147 | 23 | 57·7 | 1 | 0·19 |

317—319—322.—Comparison stars for C met 2 of 1861.
323.—α Hydræ Var. 1.—Supposed to vary irregularly from 2·0 to 2·5 magnitude.
336.—1418 Carrington.
342.—R Leonis Var. 1.—Period 312 days.—Range, 5th to 10th magnitude.
347.—1451 Carrington.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 316 | ... ... .. | + 2·3003 | + 0·0052 | ... | + 14·890 | + 0·219 | ... | ... |
| 317 | ... ... .. | + 4·9810 | − 0·1139 | ... | + 15·052 | + 0·473 | ... | ... |
| 318 | ... ... ... | + 1·8723 | + 0·0027 | ... | + 15·092 | + 0·174 | ... | ... |
| 319 | ... ... ... | + 4·9487 | − 0·1123 | ... | + 15·126 | + 0·467 | ... | ... |
| 320 | ... ... .. | + 2·0225 | + 0·0045 | ... | + 15·139 | + 0·186 | ... | ... |
| 321 | ... ... ... | + 2·0638 | + 0·0048 | ... | + 15·151 | + 0·190 | ... | ... |
| 322 | 9851 O. A. N. ... | + 4·9336 | − 0·1164 | ... | + 15·224 | + 0·461 | ... | ... |
| 323 | 30 Hydræ α Var. 1 ... | + 2·9507 | − 0·0013 | − 0·004 | + 15·412 | + 0·268 | − 0·03 | 3223 |
| 324 | 2 Leonis ω ... ... | + 3·2199 | − 0·0087 | ... | + 15·426 | + 0·293 | ... | 3227 |
| 325 | 3853 Lacaille ... | + 2·3088 | + 0·0063 | ... | + 15·502 | + 0·207 | ... | ... |
| 326 | ... ... ... | + 2·3571 | + 0·0064 | ... | + 15·615 | + 0·209 | ... | ... |
| 327 | 6 Leonis h ... .. | + 3·2248 | − 0·0092 | − 0·002 | + 15·619 | + 0·288 | − 0·02 | 3251 |
| 328 | 3886 Lacaille ... | + 2·0057 | + 0·0052 | ... | + 15·624 | + 0·176 | ... | ... |
| 329 | 3887 Lacaille ... | + 2·0739 | + 0·0057 | ... | + 15·635 | + 0·182 | ... | ... |
| 330 | ... ... ... | + 1·8906 | + 0·0038 | ... | + 15·743 | + 0·164 | ... | ... |
| 331 | ... ... ... | + 2·4141 | + 0·0067 | ... | + 15·850 | + 0·209 | ... | ... |
| 332 | ... ... .. | + 2·4134 | + 0·0068 | ... | + 15·856 | + 0·208 | ... | ... |
| 333 | 10 Leonis ... ... | + 3·1785 | − 0·0077 | ... | + 15·909 | + 0·276 | ... | 3286 |
| 334 | 4259 Taylor ... ... | + 3·1544 | + 0·0063 | ... | + 16·012 | + 0·182 | ... | 3300 |
| 335 | ... ... ... | + 2·4011 | + 0·0072 | ... | + 16·039 | + 0·203 | ... | ... |
| 336 | 69 R. P. L. ... ... | + 19·6194 | − 5·8156 | ... | + 16·045 | + 1·710 | ... | ... |
| 337 | ... ... .. | + 2·4053 | + 0·0072 | ... | + 16·062 | + 0·203 | ... | ... |
| 338 | 14 Leonis ο ... ... | + 3·2107 | − 0·0093 | − 0·013 | + 16·113 | + 0·272 | + 0·04 | 3312 |
| 339 | ... ... ... | + 2·3939 | + 0·0075 | ... | + 16·158 | + 0·200 | ... | ... |
| 340 | 4280 Taylor ... .. | + 2·0465 | + 0·0065 | ... | + 16·158 | + 0·170 | ... | ... |
| 341 | 17 Leonis ε ... ... | + 3·4241 | − 0·0180 | − 0·004 | + 16·331 | + 0·282 | + 0·03 | 3331 |
| 342 | R Leonis Var. 1 ... | + 3·2357 | − 0·0101 | ... | + 16·438 | + 0·263 | ... | 3345 |
| 343 | ... .. ... | + 2·4213 | + 0·0084 | ... | + 16·560 | + 0·192 | ... | ... |
| 344 | ... ... ... | + 2·0489 | + 0·0075 | ... | + 16·604 | + 0·160 | ... | ... |
| 345 | ... .. ... | + 1·9203 | + 0·0060 | ... | + 16·630 | + 0·150 | ... | ... |
| 346 | ... ... ... | + 2·4732 | + 0·0086 | ... | + 16·718 | + 0·192 | ... | ... |
| 347 | 70 R. P. L. ... ... | + 10·8353 | − 1·5057 | ... | + 16·729 | + 0·864 | ... | ... |
| 348 | 4402 Taylor ... ... | + 2·4731 | + 0·0091 | ... | + 16·907 | + 0·187 | ... | ... |
| 349 | 29 Leonis π ... ... | + 3·1797 | − 0·0081 | − 0·003 | + 17·053 | + 0·236 | + 0·03 | 3415 |
| 350 | ... ... .. | + 1·9940 | + 0·0066 | ... | + 17·153 | + 0·143 | ... | ... |

*Mean Positions of Stars for 1863 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 351 | ... ... ... ... | 8·0 | 1 | 9 | 56 | 24·14 | 144 | 3 | 33·7 | 1 | 0·20 |
| 352 | 4476 Taylor ... .. | 8·9 | 1 | 9 | 57 | 48·75 | 146 | 35 | 45·6 | 1 | 0·17 |
| 353 | 31 Leonis A ... .. | 5·0 | ... | 10 | 0 | 37·82 | 79 | 19 | 58·0 | 2 | 0·17 |
| 354 | 32 Leonis $\alpha$ (*Regulus*) ... | 1·3 | ... | 10 | 1 | 4·34 | 77 | 21 | 53·2 | 20 | 0·24 |
| 355 | 4538 Taylor ... ... | 7·0 | ... | 10 | 6 | 6·78 | 129 | 19 | 7·2 | 1 | 0·23 |
| 356 | .. ... ... ... | 9·0 | 1 | 10 | 8 | 59·19 | 139 | 51 | 23·4 | 1 | 0·21 |
| 357 | 72 R. P. L. ... ... | 6·0 | ... | 10 | 9 | 10·79 | 5 | 3 | 20·2 | 4 | 0·50 |
| 358 | 4577 Taylor ... ... | 9·0 | 1 | 10 | 9 | 45·09 | 128 | 36 | 39·0 | 2 | 0·24 |
| 359 | 41 Leonis $\gamma^1$ ... ... | 2·0 | ... | 10 | 12 | 24·85 | 69 | 28 | 1·5 | 14 | 0·24 |
| 360 | ... ... ... ... | 9·0 | 1 | 10 | 14 | 36·11 | 150 | 25 | 19·3 | 1 | 0·17 |
| 361 | 43 Leonis ... .. ... | 6·5 | ... | 10 | 15 | 50·04 | 82 | 45 | 46·0 | 2 | 0·10 |
| 362 | ... ... ... ... | 9·0 | 1 | 10 | 16 | 9·40 | 129 | 15 | 55·9 | 1 | 0·23 |
| 363 | 44 Leonis ... ... ... | 6·0 | ... | 10 | 18 | 1·87 | 80 | 31 | 13·6 | 1 | 0·25 |
| 364 | ... ... ... ... | 9·7 | 1 | 10 | 18 | 43·26 | 146 | 8 | 10·2 | 1 | 0·19 |
| 365 | ... ... ... ... | 8·9 | 1 | 10 | 21 | 50·24 | 146 | 54 | 34·8 | 1 | 0·17 |
| 366 | 47 Leonis $\rho$ ... ... | 4·3 | ... | 10 | 25 | 35·67 | 79 | 59 | 22·8 | 12 | 0·23 |
| 367 | ... ... ... ... | 9·5 | 1 | 10 | 29 | 10·39 | 147 | 53 | 17·9 | 1 | 0·19 |
| 368 | 4769 Taylor ... ... | 6·0 | 1 | 10 | 30 | 20·20 | 146 | 50 | 58·0 | 1 | 0·17 |
| 369 | R Ursæ Majoris Var. 1 ... | 7·0 | 5 | 10 | 34 | 54·01 | 20 | 30 | 25·3 | 5 | 0·22 |
| 370 | ... ... ... ... | 9·5 | 1 | 10 | 35 | 19·32 | 137 | 19 | 15·0 | 1 | 0·09 |
| 371 | ... ... ... ... | 8·0 | 1 | 10 | 38 | 44·67 | 144 | 50 | 1·4 | 1 | 0·18 |
| 372 | ... ... ... ... | 9·0 | 1 | 10 | 41 | 22·73 | 140 | 22 | 52·8 | 1 | 0·19 |
| 373 | 53 Leonis *l* ... ... | 6·0 | ... | 10 | 42 | 3·21 | 78 | 43 | 51·1 | 11 | 0·20 |
| 374 | ... ... ... ... | 9·0 | 1 | 10 | 42 | 34·28 | 141 | 4 | 7·1 | 1 | 0·18 |
| 375 | .. ... ... | 8·9 | 1 | 10 | 43 | 50·46 | 137 | 2 | 29·7 | 1 | 0·19 |
| 376 | ... ... ... ... | 7·8 | 1 | 10 | 46 | 0·31 | 141 | 39 | 32·0 | 1 | 0·29 |
| 377 | ... ... ... ... | 9·0 | 1 | 10 | 47 | 50·58 | 150 | 5 | 12·9 | 1 | 0·17 |
| 378 | .. ... ... ... | 9·0 | 1 | 10 | 47 | 56·36 | 129 | 28 | 53·1 | 1 | 0·21 |
| 379 | 4945 Taylor ... ... | 7·0 | 1 | 10 | 48 | 53·30 | 144 | 53 | 22·0 | 1 | 0·18 |
| 380 | ... ... .. ... | 8·0 | 1 | 10 | 50 | 13·69 | 144 | 30 | 10·9 | 1 | 0·20 |
| 381 | 4955 Taylor ... ... | 7·0 | 1 | 10 | 50 | 38·19 | 147 | 19 | 17·2 | 1 | 0·19 |
| 382 | 4969 Taylor ... ... | 9·0 | 1 | 10 | 52 | 16·75 | 143 | 35 | 55·0 | 1 | 0·10 |
| 383 | ... ... ... .. | 8·9 | 1 | 10 | 52 | 50·29 | 139 | 32 | 28·7 | 1 | 0·19 |
| 384 | 59 Leonis *c* ... ... | 5·5 | ... | 10 | 53 | 38·56 | 83 | 9 | 48·8 | 2 | 0·17 |
| 385 | 61 Leonis $p^1$ ... ... | 5·5 | ... | 10 | 54 | 50·53 | 91 | 44 | 52·2 | 2 | 0·32 |

357.—1620 Groombridge.
369.—R Ursæ Majoris Var. 1.—Period 303 days.—Range, 6th to 13th magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. Annual Precession. | In Right Ascension. Secular Variation. | In Right Ascension. Proper Motion. | In Polar Distance. Annual Precession. | In Polar Distance. Secular Variation. | In Polar Distance. Proper Motion. | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | s | s | s | " | " | " | |
| 351 | ... ... .. | + 2·1250 | + 0·0102 | ... | + 17·209 | + 0·152 | ... | ... |
| 352 | 4476 Taylor ... ... | + 2·0798 | + 0·0100 | ... | + 17·272 | + 0·147 | ... | ... |
| 353 | 31 Leonis A ... .. | + 3·1974 | − 0·0091 | − 0·009 | + 17·396 | + 0·225 | + 0·05 | 3457 |
| 354 | 32 Leonis α ... ... | + 3·2206 | − 0·0102 | − 0·019 | + 17·415 | + 0·225 | − 0·01 | 3459 |
| 355 | 4538 Taylor ... ... | + 2·5502 | + 0·0109 | ... | + 17·630 | + 0·169 | ... | ... |
| 356 | ... ... .. | + 2·3338 | + 0·0131 | ... | + 17·748 | + 0·150 | ... | ... |
| 357 | 72 R. P. L. ... .. | + 10·0084 | − 1·6698 | − 0·079 | + 17·756 | + 0·677 | + 0·05 | 3495 |
| 358 | 4577 Taylor ... ... | + 2·5781 | + 0·0112 | ... | + 17·770 | + 0·166 | ... | ... |
| 359 | 41 Leonis $\gamma^1$ ... | + 3·2985 | − 0·0147 | + 0·019 | + 17·886 | + 0·208 | + 0·15 | 3523 |
| 360 | ... ... ... | + 2·0266 | + 0·0122 | ... | + 17·972 | + 0·123 | ... | ... |
| 361 | 43 Leonis ... ... | + 3·1466 | − 0·0068 | ... | + 18·019 | + 0·194 | ... | 3544 |
| 362 | ... ... ... | + 2·5936 | + 0·0121 | ... | + 18·031 | + 0·158 | ... | ... |
| 363 | 44 Leonis ... ... | + 3·1682 | − 0·0079 | ... | + 18·103 | + 0·191 | ... | 3561 |
| 364 | ... ... .. | + 2·2200 | + 0·0152 | ... | + 18·128 | + 0·131 | ... | ... |
| 365 | ... ... ... | + 2·2199 | + 0·0160 | ... | + 18·243 | + 0·126 | ... | ... |
| 366 | 47 Leonis ρ ... ... | + 3·1664 | − 0·0079 | 0·000 | + 18·378 | + 0·176 | + 0·03 | 3600 |
| 367 | ... ... .. | + 2·2496 | + 0·0181 | ... | + 18·501 | + 0·119 | ... | ... |
| 368 | 4769 Taylor ... .. | + 2·2915 | + 0·0184 | ... | + 18·540 | + 0·120 | ... | 3635 |
| 369 | R Urs. Maj. Var. 1 ... | + 4·3691 | − 0·1402 | ... | + 18·659 | + 0·223 | ... | ... |
| 370 | ... ... ... | + 2·5484 | + 0·0177 | ... | + 18·701 | + 0·126 | ... | ... |
| 371 | ... ... .. | + 2·4132 | + 0·0207 | ... | + 18·808 | + 0·114 | ... | ... |
| 372 | ... ... .. | + 2·3956 | + 0·0218 | ... | + 18·857 | + 0·109 | ... | ... |
| 373 | 53 Leonis l ... .. | + 3·1609 | − 0·0080 | − 0·003 | + 18·907 | + 0·145 | + 0·02 | 3708 |
| 374 | ... ... .. | + 2·5235 | + 0·0208 | ... | + 18·922 | + 0·114 | ... | ... |
| 375 | ... ... .. | + 2·6036 | + 0·0198 | ... | + 18·958 | + 0·116 | ... | ... |
| 376 | ... ... .. | + 2·5356 | + 0·0215 | ... | + 19·019 | + 0·109 | ... | ... |
| 377 | ... ... ... | + 2·3521 | + 0·0346 | ... | + 19·070 | + 0·098 | ... | ... |
| 378 | ... ... .. | + 2·7315 | + 0·0164 | ... | + 19·072 | + 0·115 | ... | ... |
| 379 | 4945 Taylor ... .. | + 2·4014 | + 0·0236 | ... | + 19·098 | + 0·103 | ... | ... |
| 380 | ... ... .. | + 2·5104 | + 0·0238 | ... | + 19·133 | + 0·102 | ... | ... |
| 381 | 4955 Taylor ... .. | + 2·4508 | + 0·0250 | ... | + 19·144 | + 0·097 | ... | ... |
| 382 | 4969 Taylor ... .. | + 2·5440 | + 0·0230 | ... | + 19·186 | + 0·100 | ... | ... |
| 383 | ... ... ... | + 2·6191 | + 0·0222 | ... | + 19·200 | + 0·102 | ... | ... |
| 384 | 59 Leonis c ... .. | + 3·5298 | − 0·0056 | − 0·005 | + 19·220 | + 0·139 | + 0·06 | 3760 |
| 385 | 61 Leonis $p^1$ ... .. | + 3·0606 | − 0·0007 | ... | + 19·250 | + 0·117 | ... | 3775 |

*Mean Positions of Stars for 1863 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 386 | ... ... ... ... | 9·0 | 1 | 10 | 56 | 59·40 | 145 | 35 | 22·4 | 1 | 0·18 |
| 387 | 4076 Lacaille ... ... | 8·2 | 1 | 10 | 57 | 46·14 | 129 | 34 | 13·0 | 1 | 0·22 |
| 388 | 63 Leonis χ ... .. | 5·0 | ... | 10 | 57 | 56·90 | 81 | 55 | 26·5 | 8 | 0·29 |
| 389 | ... .. ... ... | 9·5 | 1 | 10 | 58 | 9·40 | 140 | 58 | 54·6 | 1 | 0·18 |
| 390 | 65 Leonis p[3] ... ... | 5·5 | ... | 10 | 59 | 55·01 | 87 | 18 | 6·0 | 1 | 0·17 |
| 391 | ... ... ... ... | 9·5 | 1 | 11 | 0 | 34·00 | 147 | 13 | 24·8 | 1 | 0·19 |
| 392 | 5092 Taylor ... ... | 8·7 | 1 | 11 | 5 | 16·22 | 143 | 48 | 48·3 | 1 | 0·27 |
| 393 | 68 Leonis δ ... ... | 2·5 | ... | 11 | 6 | 49·01 | 68 | 43 | 35·1 | 11 | 0·32 |
| 394 | ... ... ... ... | 8·8 | 1 | 11 | 7 | 4·51 | 145 | 39 | 55·0 | 1 | 0·27 |
| 395 | ... ... ... ... | 8·4 | 2 | 11 | 8 | 31·33 | 150 | 50 | 31·6 | 2 | 0·21 |
| 396 | ... ... ... ... | 10·0 | 1 | 11 | 9 | 26·23 | 145 | 54 | 54·6 | 1 | 0·18 |
| 397 | ... ... ... ... | 9·0 | 1 | 11 | 9 | 36·60 | 147 | 10 | 54·2 | 1 | 0·19 |
| 398 | 74 Leonis φ ... ... | 4·7 | ... | 11 | 9 | 41·76 | 92 | 54 | 12·3 | 4 | 0·19 |
| 399 | ... ... ... ... | 10·0 | 1 | 11 | 10 | 29·26 | 141 | 8 | 15·3 | 1 | 0·15 |
| 400 | ... ... ... ... | 9·0 | ... | 11 | 11 | 5·42 | 127 | 38 | 2·2 | 1 | 0·21 |
| 401 | 12 Crateris δ ... ... | 8·3 | ... | 11 | 12 | 29·59 | 104 | 2 | 15·0 | 13 | 0·33 |
| 402 | ... ... ... ... | 7·8 | 1 | 11 | 12 | 45·72 | 129 | 31 | 48·6 | 1 | 0·23 |
| 403 | ... ... ... ... | 8·2 | 2 | 11 | 19 | 22·11 | 129 | 30 | 37·5 | 2 | 0·23 |
| 404 | ... ... ... ... | 9·5 | 1 | 11 | 21 | 39·16 | 128 | 22 | 27·3 | 2 | 0·29 |
| 405 | ... ... ... ... | 9·0 | 1 | 11 | 22 | 45·50 | 145 | 53 | 23·6 | 1 | 0·18 |
| 406 | ... ... ... ... | 9·2 | 1 | 11 | 23 | 8·90 | 142 | 52 | 15·8 | 1 | 0·28 |
| 407 | 87 Leonis e ... ... | 5·5 | ... | 11 | 23 | 18·71 | 92 | 14 | 53·9 | 3 | 0·15 |
| 408 | ... ... ... ... | 9·8 | 3 | 11 | 23 | 18·84 | 23 | 20 | 52·0 | 3 | 0·23 |
| 409 | ... ... ... ... | 10·0 | 2 | 11 | 26 | 36·13 | 23 | 17 | 16·5 | 2 | 0·23 |
| 410 | ... ... ... ... | 8·9 | 1 | 11 | 29 | 48·26 | 140 | 15 | 22·2 | 1 | 0·17 |
| 411 | 91 Leonis υ ... ... | 4·7 | ... | 11 | 29 | 56·07 | 90 | 4 | 4·1 | 13 | 0·31 |
| 412 | ... ... ... ... | 8·0 | 1 | 11 | 32 | 6·37 | 144 | 14 | 11·0 | 1 | 0·20 |
| 413 | ... .. .. . | 8·4 | 1 | 11 | 33 | 54·38 | 127 | 48 | 55·5 | 1 | 0·24 |
| 414 | .. ... ... ... | 7·0 | 1 | 11 | 34 | 17·41 | 144 | 20 | 21·7 | 1 | 0·27 |
| 415 | ... .. ... . | 7·0 | 1 | 11 | 36 | 0·31 | 139 | 39 | 56·1 | 1 | 0·20 |
| 416 | 5384 Taylor ... ... | 6·0 | 1 | 11 | 36 | 59·00 | 151 | 43 | 47·3 | 1 | 0·10 |
| 417 | ... ... ... ... | 9·3 | 1 | 11 | 38 | 6·44 | 149 | 38 | 28·8 | 1 | 0·27 |
| 418 | ... ... ... ... | 9·2 | 2 | 11 | 38 | 30·07 | 129 | 33 | 42·1 | 2 | 0·26 |
| 419 | ... ... ... ... | 9·2 | 1 | 11 | 41 | 5·95 | 126 | 30 | 4·9 | 1 | 0·24 |
| 420 | ... ... ... ... | 8·3 | 2 | 11 | 41 | 9·28 | 129 | 31 | 44·8 | 2 | 0·23 |

408—409.—Comparison stars for Comet 2 of 1861.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star | In Right Ascension. Annual Precession. | In Right Ascension. Secular Variation | In Right Ascension. Proper Motion. | In Polar Distance. Annual Precession. | In Polar Distance. Secular Variation. | In Polar Distance. Proper Motion. | Number in R. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | s | s | s | " | " | " | |
| 386 | .. . | + 2·5421 | + 0·0263 | | + 19·302 | + 0·092 | ... | . |
| 387 | 4076 Lacaille | + 2·7757 | + 0·0179 | ... | + 19·320 | + 0·100 | .. | ... |
| 388 | 63 Leonis χ . .. | + 3·1227 | − 0·0056 | − 0·024 | + 19·325 | + 0·112 | + 0·08 | 3758 |
| 389 | .. | + 2·6331 | + 0·0242 | ... | + 19·329 | + 0·094 | . | ... |
| 390 | 65 Leonis p² .. | + 3·0884 | − 0·0028 | .. | + 19·370 | + 0·109 | | 3798 |
| 391 | | + 2·5396 | + 0·0282 | .. | + 19·384 | + 0·067 | .. | |
| 392 | 5092 Taylor . . | + 2·6397 | + 0·0276 | ... | + 19·486 | + 0·083 | .. | |
| 393 | 68 Leonis δ ... ... | + 3·1917 | − 0·0132 | + 0·011 | + 19·518 | + 0·098 | + 0·14 | 3834 |
| 394 | ... ... . | + 2·6240 | + 0·0294 | ... | + 19·523 | + 0·079 | | ... |
| 395 | .. | + 2·5383 | + 0·0441 | | + 19·551 | + 0·074 | | .. |
| 396 | | + 2·6397 | + 0·0304 | ... | + 19·569 | + 0·076 | ... | |
| 397 | | + 2·6199 | + 0·0333 | | + 19·572 | + 0·075 | .. | |
| 398 | 74 Leonis φ ... ... | + 3·0573 | + 0·0006 | − 0·009 | + 19·574 | + 0·089 | + 0·04 | 3848 |
| 399 | | + 2·7164 | + 0·0273 | ... | + 19·589 | + 0·077 | | |
| 400 | | + 2·8537 | + 0·0186 | ... | + 19·601 | + 0·080 | ... | |
| 401 | 12 Crateris δ .. | + 3·0031 | + 0·0064 | − 0·009 | + 19·626 | + 0·081 | − 0·18 | 3859 |
| 402 | .. | + 2·8463 | + 0·0200 | . | + 19·630 | + 0·077 | ... | . |
| 403 | . | + 2·8776 | + 0·0209 | ... | + 19·741 | + 0·065 | | |
| 404 | . .. . | + 2·8967 | + 0·0205 | . | + 19·775 | + 0·061 | | .. |
| 405 | . | + 2·7527 | + 0·0344 | | + 19·790 | + 0·056 | .. | . |
| 406 | ... .. | + 2·7893 | + 0·0318 | | + 19·797 | + 0·056 | ... | |
| 407 | 87 Leonis c ... . | + 3·0637 | + 0·0011 | − 0·001 | + 19·799 | + 0·062 | + 0·03 | 3916 |
| 408 | .. | + 3·5657 | − 0·0905 | | + 19·799 | + 0·074 | | |
| 409 | | + 3·5231 | − 0·0923 | | + 19·843 | + 0·065 | .. | |
| 410 | | + 2·7768 | + 0·0406 | | + 19·881 | + 0·044 | | |
| 411 | 91 Leonis υ ... | + 3·0718 | + 0·0003 | − 0·003 | + 19·883 | + 0·049 | − 0·03 | 3946 |
| 412 | | + 2·8467 | + 0·0356 | | + 19·907 | + 0·041 | ... | . |
| 413 | | + 2·9541 | + 0·0219 | | + 19·925 | + 0·040 | | ... |
| 414 | | + 2·8634 | + 0·0364 | | + 19·929 | + 0·037 | | |
| 415 | ... . | + 2·9074 | + 0·0320 | | + 19·945 | + 0·035 | | |
| 416 | 5384 Taylor .. | + 2·8230 | + 0·0470 | | + 19·954 | + 0·032 | | 3976 |
| 417 | | + 2·8543 | + 0·0444 | . | + 19·964 | + 0·030 | | . |
| 418 | | + 2·9093 | + 0·0237 | | + 19·968 | + 0·031 | | |
| 419 | . .. | + 2·9306 | + 0·0218 | | + 19·987 | + 0·027 | | . |
| 420 | . | + 2·9814 | + 0·0240 | | + 19·987 | + 0·027 | | |

*Mean Positions of Stars for 1863 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 421 | 94 Leonis β ... ... | 2·0 | . | 11 | 42 | 4·17 | 74 | 39 | 45·0 | 6 | 0·35 |
| 422 | ... ... . ... | 9·3 | 1 | 11 | 43 | 5·22 | 143 | 44 | 54·7 | 1 | 0·27 |
| 423 | 5427 Taylor ... ... | 6·0 | 3 | 11 | 44 | 2·03 | 94 | 34 | 18·1 | 3 | 0·25 |
| 424 | ... ... ... ... | 8·2 | 1 | 11 | 44 | 41·15 | 129 | 2 | 19·6 | 1 | 0·24 |
| 425 | 5433 Taylor ... ... | 7·8 | 2 | 11 | 44 | 48·41 | 129 | 32 | 40·8 | 2 | 0·23 |
| 426 | ... ... ... ... | 9·4 | 1 | 11 | 45 | 48·58 | 142 | 30 | 41·1 | 1 | 0·28 |
| 427 | ... .. .. .. | 8·7 | ... | 11 | 49 | 53·93 | 128 | 5 | 8·2 | 1 | 0·24 |
| 428 | ... ... .. ... | 8·7 | 1 | 11 | 51 | 20·73 | 128 | 52 | 13·9 | 1 | 0·24 |
| 429 | ... ... ... ... | 9·0 | 1 | 11 | 51 | 33·69 | 144 | 12 | 35·9 | 1 | 0·28 |
| 430 | ... .. ... .. | 9·7 | 2 | 11 | 53 | 47·12 | 129 | 35 | 29·0 | 2 | 0·23 |
| 431 | ... ... .. ... | 9·0 | 1 | 11 | 56 | 20·43 | 128 | 29 | 37·2 | 1 | 0·37 |
| 432 | 5534 Taylor ... ... | 8·0 | 1 | 11 | 56 | 46·47 | 143 | 56 | 59·0 | 1 | 0·27 |
| 433 | 4995 Lacaille . ... | 7·3 | 1 | 11 | 56 | 51·02 | 142 | 44 | 6·0 | 1 | 0·29 |
| 434 | 89 R. P. L. ... ... | 6·3 | ... | 11 | 57 | 48·13 | 3 | 39 | 13·4 | 10 | 0·43 |
| 435 | ... ... ... ... | 8·0 | 1 | 11 | 58 | 58·32 | 128 | 27 | 25·6 | 1 | 0·24 |
| 436 | ... .. .. ... | 8·0 | 1 | 11 | 59 | 41·35 | 144 | 15 | 51·2 | 1 | 0·28 |
| 437 | ... ... ... ... | 9·0 | 1 | 12 | 1 | 33·96 | 130 | 1 | 14·1 | 1 | 0·23 |
| 438 | 5041 Lacaille .. ... | 8·2 | 1 | 12 | 2 | 29·66 | 141 | 22 | 52·4 | 1 | 0·27 |
| 439 | ... ... ... ... | 9·5 | 1 | 12 | 2 | 34·21 | 141 | 5 | 17·7 | 1 | 0·10 |
| 440 | 2 Corvi ε ... ... ... | 3·0 | ... | 12 | 3 | 4·96 | 111 | 51 | 28·0 | 5 | 0·34 |
| 441 | .. .. ... ... | 9·0 | 1 | 12 | 3 | 35·27 | 145 | 56 | 44·2 | 1 | 0·27 |
| 442 | ... ... ... ... | 8·0 | 1 | 12 | 5 | 44·87 | 134 | 7 | 45·7 | 1 | 0·32 |
| 443 | ... ... ... ... | 9·5 | 1 | 12 | 5 | 59·86 | 130 | 10 | 45·5 | 1 | 0·23 |
| 444 | .. ... .. ... | 8·0 | 1 | 12 | 6 | 9·37 | 138 | 27 | 11·7 | 1 | 0·28 |
| 445 | ... ... .. ... | 9·4 | 1 | 12 | 6 | 26·01 | 142 | 50 | 19·4 | 1 | 0·29 |
| 446 | 5613 Taylor ... | 7·2 | 1 | 12 | 7 | 52·61 | 130 | 22 | 28·7 | 1 | 0·24 |
| 447 | 69 Urs. Maj. δ (*Mizar*) ... | 4·5 | ... | 12 | 8 | 37·92 | 33 | 12 | 22·1 | 3 | 0·25 |
| 448 | ... .. ... ... | 8·0 | 1 | 12 | 8 | 46·96 | 144 | 19 | 53·0 | 1 | 0·28 |
| 449 | 15 Virginis η .. .. | 3·7 | ... | 12 | 13 | 53·82 | 89 | 54 | 19·3 | 4 | 0·36 |
| 450 | .. .. — ... | 9·6 | 1 | 12 | 14 | 0·35 | 143 | 41 | 28·3 | 1 | 0·27 |
| 451 | 5119 Lacaille ... . | 9·0 | 1 | 12 | 15 | 18·51 | 138 | 33 | 54·9 | 1 | 0·18 |
| 452 | .. .. .. ... | 8·5 | 1 | 12 | 15 | 48·74 | 141 | 39 | 37·5 | 1 | 0·27 |
| 453 | ... ... — . | 8·9 | 1 | 12 | 16 | 42·61 | 147 | 9 | 36·1 | 1 | 0·27 |
| 454 | .. — — . | 10·0 | 1 | 12 | 18 | 35·77 | 143 | 29 | 47·8 | 1 | 0·29 |
| 455 | . — ... ... | 9·3 | 1 | 12 | 18 | 57·33 | 129 | 43 | 20·9 | 1 | 0·23 |

434.—1850 Groombridge.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion | |
| | | s | s | s | " | " | " | |
| 421 | 94 Leonis β | + 3·1007 | − 0·0074 | − 0·036 | + 19·994 | + 0·025 | + 0·10 | 3996 |
| 422 | ... | + 2·9376 | + 0·0382 | ... | + 20·000 | + 0·022 | ... | ... |
| 423 | 5427 Taylor | + 3·0646 | + 0·0034 | ... | + 20·007 | + 0·022 | ... | 4006 |
| 424 | ... | + 2·9997 | + 0·0241 | ... | + 20·011 | + 0·020 | ... | ... |
| 425 | 5433 Taylor | + 2·9990 | + 0·0246 | ... | + 20·011 | + 0·020 | ... | ... |
| 426 | ... | + 2·9640 | + 0·0373 | ... | + 20·017 | + 0·017 | ... | ... |
| 427 | ... | + 3·0259 | + 0·0241 | ... | + 20·036 | + 0·010 | ... | ... |
| 428 | ... | + 3·0314 | + 0·0249 | ... | + 20·041 | + 0·007 | ... | ... |
| 429 | ... | + 3·0038 | + 0·0410 | ... | + 20·042 | + 0·007 | ... | ... |
| 430 | ... | + 3·0420 | + 0·0258 | ... | + 20·048 | + 0·003 | ... | ... |
| 431 | ... | + 3·0550 | + 0·0253 | ... | + 20·053 | − 0·002 | ... | ... |
| 432 | 5534 Taylor | + 3·0462 | + 0·0421 | | + 20·053 | − 0·003 | ... | ... |
| 433 | 4995 Lacaille | + 3·0479 | + 0·0404 | ... | + 20·053 | − 0·003 | ... | ... |
| 434 | 89 B. P. L. | + 3·2726 | − 0·5270 | ... | + 20·054 | − 0·004 | ... | 4070 |
| 435 | ... | + 3·0673 | + 0·0255 | ... | + 20·055 | − 0·007 | ... | ... |
| 436 | ... | + 3·0695 | + 0·0434 | ... | + 20·055 | − 0·009 | ... | ... |
| 437 | ... | + 3·0798 | + 0·0273 | ... | + 20·054 | − 0·012 | ... | ... |
| 438 | 5041 Lacaille | + 3·0903 | + 0·0400 | ... | + 20·054 | − 0·014 | ... | ... |
| 439 | ... | + 3·0906 | + 0·0396 | ... | + 20·054 | − 0·015 | ... | ... |
| 440 | 2 Corvi ε | + 3·0792 | + 0·0142 | − 0·005 | + 20·054 | − 0·016 | − 0·01 | 4097 |
| 441 | ... | + 3·1030 | + 0·0473 | ... | + 20·053 | − 0·016 | ... | ... |
| 442 | ... | + 3·1045 | + 0·0318 | ... | + 20·049 | − 0·021 | ... | ... |
| 443 | ... | + 3·1016 | + 0·0280 | ... | + 20·048 | − 0·021 | ... | ... |
| 444 | ... | + 3·1126 | + 0·0369 | ... | + 20·048 | − 0·022 | ... | ... |
| 445 | ... | + 3·1216 | + 0·0410 | | + 20·048 | − 0·022 | ... | ... |
| 446 | 5613 Taylor | + 3·1111 | + 0·0284 | ... | + 20·044 | − 0·025 | ... | ... |
| 447 | 69 Urs. Maj. δ | + 2·9922 | − 0·0445 | + 0·015 | + 20·041 | − 0·026 | + 0·04 | 4123 |
| 448 | ... | + 3·1434 | + 0·0460 | ... | + 20·041 | − 0·027 | ... | ... |
| 449 | 15 Virginis η | + 3·0719 | + 0·0027 | − 0·007 | + 20·023 | − 0·035 | + 0·03 | 4145 |
| 450 | ... | + 3·1533 | + 0·0464 | ... | + 20·018 | − 0·038 | ... | ... |
| 451 | 5119 Lacaille | + 3·1731 | + 0·0889 | ... | + 20·010 | − 0·040 | ... | ... |
| 452 | ... | + 3·1580 | + 0·0435 | ... | + 20·008 | − 0·042 | ... | ... |
| 453 | ... | + 3·2229 | + 0·0535 | ... | + 20·001 | − 0·044 | ... | ... |
| 454 | ... | + 3·2185 | + 0·0464 | ... | + 19·989 | − 0·047 | ... | ... |
| 455 | ... | + 3·1638 | + 0·0292 | ... | + 19·987 | − 0·047 | ... | ... |

*Mean Positions of Stars for 1863 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | *h* | *m.* | *s.* | ° | ′ | ″ | | |
| 456 | ... ... ... | 7·8 | 1 | 12 | 18 | 59·07 | 147 | 20 | 59·3 | 1 | 0·21 |
| 457 | ... .. .. ... | 7·9 | 1 | 12 | 19 | 13·36 | 144 | 3 | 50·2 | 1 | 0·28 |
| 458 | ... .. | 8·5 | 1 | 12 | 19 | 49·79 | 124 | 12 | 47·8 | 1 | 0·32 |
| 459 | ... ... ... ... | 7·8 | 1 | 12 | 20 | 42·62 | 141 | 18 | 58·0 | 1 | 0·28 |
| 460 | 5725 Taylor ... ... | 7·0 | 1 | 12 | 21 | 6·95 | 145 | 38 | 27·1 | 1 | 0·18 |
| 461 | 21 Virginis *q* . ... | 5·5 | 2 | 12 | 26 | 42·48 | 98 | 41 | 45·2 | 2 | 0·27 |
| 462 | 9 Corvi *β* .. ... ... | 2·3 | ... | 12 | 27 | 11·69 | 112 | 38 | 19·7 | 5 | 0·37 |
| 463 | . ... .. ... | 9·0 | 1 | 12 | 27 | 46·22 | 140 | 55 | 11·2 | 1 | 0·28 |
| 464 | .. . ... .. | 9·0 | 1 | 12 | 30 | 47·53 | 142 | 19 | 22·4 | 1 | 0·28 |
| 465 | R. Virginis Var. 2 .. | 9·1 | 3 | 12 | 31 | 32·83 | 82 | 15 | 27·4 | 3 | 0·33 |
| 466 | . ... ... | 9·3 | 1 | 12 | 31 | 48·89 | 84 | 30 | 11·7 | 1 | 0·38 |
| 467 | 26 Virginis *χ* .. | 5·0 | 2 | 12 | 32 | 10·64 | 97 | 14 | 27·6 | 5 | 0·28 |
| 468 | ... .. . ... | 9·0 | 1 | 12 | 32 | 46·05 | 143 | 7 | 2·1 | 1 | 0·29 |
| 469 | ... ... .. ... | 8·9 | 1 | 12 | 33 | 43·61 | 145 | 33 | 10·0 | 1 | 0·27 |
| 470 | 5830 Taylor . ... | 7·8 | 1 | 12 | 34 | 23·55 | 144 | 0 | 34·8 | 1 | 0·27 |
| 471 | 29 Virginis $\gamma^1$ (*north*) ... | 3·5 | .. | 12 | 34 | 43·09 | 90 | 41 | 49·0 | 1 | 0·40 |
| 472 | S. Ursæ Majoris Var 2 .. | 8·5 | 1 | 12 | 37 | 54·71 | 28 | 9 | 19·6 | 1 | 0·38 |
| 473 | 5863 Taylor . ... | 7·5 | 1 | 12 | 38 | 18·48 | 143 | 51 | 43·8 | 1 | 0·27 |
| 474 | ... ... .. ... | 8·8 | 1 | 12 | 41 | 36·48 | 141 | 49 | 14·8 | 1 | 0·28 |
| 475 | .. ... .. .. | 9·0 | 1 | 12 | 42 | 20·72 | 147 | 18 | 24·6 | 1 | 0·27 |
| 476 | ... .. .. .. | 8·9 | 1 | 12 | 42 | 44·02 | 142 | 51 | 35·8 | 1 | 0·29 |
| 477 | .. ... | 9·0 | 1 | 12 | 42 | 47·52 | 139 | 24 | 55·7 | 1 | 0·28 |
| 478 | . ... | 8·9 | 1 | 12 | 43 | 13·93 | 129 | 7 | 30·6 | 1 | 0·29 |
| 479 | 40 Virginis *ψ* ... | 5·0 | 1 | 12 | 47 | 13·02 | 98 | 47 | 38·8 | 2 | 0·25 |
| 480 | 99 B. P. L. ... | 5·6 | | 12 | 48 | 10·08 | 5 | 50 | 33·2 | 2 | 0·59 |
| 481 | .. . | 8·9 | 1 | 12 | 49 | 20·13 | 145 | 33 | 53·6 | 1 | 0·27 |
| 482 | 12 Canum Venaticorum *α*. | 3·0 | . | 12 | 49 | 36·76 | 50 | 56 | 28·9 | 5 | 0·38 |
| 483 | 5974 Taylor | 8·9 | 1 | 12 | 51 | 50·95 | 143 | 38 | 16·2 | 1 | 0·27 |
| 484 | . .. . | 8·4 | 2 | 12 | 53 | 4·27 | 142 | 23 | 44·0 | 2 | 0·28 |
| 485 | .. .. | 8·0 | 1 | 12 | 53 | 22·37 | 135 | 44 | 7·9 | 1 | 0·32 |
| 486 | . | 9·2 | 1 | 12 | 54 | 31·52 | 139 | 18 | 3·3 | 1 | 0·28 |
| 487 | .. .. | 8·3 | 1 | 12 | 56 | 56·17 | 123 | 24 | 51·4 | 1 | 0·32 |
| 488 | 5381 Lacaille | 7·8 | 1 | 12 | 57 | 4·42 | 129 | 56 | 47·9 | 1 | 0·31 |
| 489 | 51 Virginis *θ* | 4·7 | .. | 13 | 2 | 51·48 | 94 | 48 | 25·0 | 5 | 0·37 |
| 490 | 6067 Taylor . | 6·0 | 1 | 13 | 3 | 43·62 | 149 | 11 | 25·0 | 1 | 0·18 |

465.—R. Virginis Var. 2.—Period 146 days.—Range, 6·5 to 11th magnitude.
472.—S. Ursæ Majoris Var. 2.—Period 225 days.—Range, 7th to 12th magnitude
480.—1940 Groombridge.
482.—Second star.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 456 | ... | + 3·2449 | + 0·0646 | ... | + 19·986 | − 0·040 | ... | ... |
| 457 | ... | + 3·2266 | + 0·0452 | .. | + 19·984 | − 0·049 | .. | .. |
| 458 | ... | + 3·1506 | + 0·0244 | ... | + 19·979 | − 0·049 | .. | .. |
| 459 | ... | + 3·2228 | + 0·0438 | ... | + 19·973 | − 0·051 | ... | ... |
| 460 | 5725 Taylor | + 3·2519 | + 0·0517 | ... | + 19·970 | − 0·045 | .. | .. |
| 461 | 21 Virginis q | + 3·0959 | + 0·0060 | − 0·009 | + 19·919 | − 0·062 | 0·00 | 4230 |
| 462 | 9 Corvi β | + 3·1379 | + 0·0164 | − 0·008 | + 19·915 | − 0·064 | + 0·07 | 4234 |
| 463 | ... | + 3·2711 | + 0·0447 | ... | + 19·908 | − 0·067 | ... | ... |
| 464 | ... | + 3·3039 | + 0·0476 | ... | + 19·874 | − 0·074 | ... | ... |
| 465 | R Virginis Var. 2 | + 3·0471 | − 0·0008 | .. | + 19·865 | − 0·070 | ... | ... |
| 466 | ... | + 3·0541 | + 0·0065 | ... | + 19·862 | − 0·071 | .. | .. |
| 467 | 26 Virginis χ | + 3·0958 | + 0·0075 | ... | + 19·857 | − 0·074 | .. | 4257 |
| 468 | ... | + 3·3259 | + 0·0496 | .. | + 19·850 | − 0·079 | ... | ... |
| 469 | ... | + 3·3579 | + 0·0548 | ... | + 19·838 | − 0·081 | .. | ... |
| 470 | 5830 Taylor | + 3·3472 | + 0·0518 | ... | + 19·829 | − 0·082 | ... | 4266 |
| 471 | 29 Virginis γ[1] | + 3·0744 | + 0·0043 | − 0·037 | + 19·826 | − 0·078 | + 0·05 | 4268 |
| 472 | S Urs. Maj. Var. 2 | + 2·6607 | − 0·0360 | ... | + 19·781 | − 0·073 | ... | ... |
| 473 | 5903 Taylor | + 3·3767 | + 0·0521 | . | + 19·776 | − 0·091 | ... | 4283 |
| 474 | ... | + 3·3790 | + 0·0490 | ... | + 19·726 | − 0·097 | . | .. |
| 475 | ... | + 3·4548 | + 0·0612 | ... | + 19·714 | − 0·101 | . | |
| 476 | ... | + 3·3993 | + 0·0512 | . | + 19·707 | − 0·100 | ... | .. |
| 477 | ... | + 3·3618 | + 0·0449 | .. | + 19·706 | − 0·099 | ... | ... |
| 478 | ... | + 3·2760 | + 0·0313 | . | + 19·700 | − 0·098 | .. | |
| 479 | 40 Virginis ψ | + 3·1144 | + 0·0092 | − 0·002 | + 19·631 | − 0·101 | + 0·04 | 4330 |
| 480 | 99 R. P. L. | + 0·3463 | + 0·2269 | − 0·017 | + 19·614 | − 0·019 | − 0·04 | 4339 |
| 481 | .. | + 3·4886 | + 0·0586 | . | + 19·593 | − 0·117 | ... | .. |
| 482 | 12 Can. Ven. α | + 2·8389 | − 0·0152 | − 0·023 | + 19·587 | − 0·090 | − 0·06 | 4346 |
| 483 | 5974 Taylor | + 3·4734 | + 0·0546 | | + 19·544 | − 0·122 | | |
| 484 | ... | + 3·4704 | + 0·0522 | .. | + 19·519 | − 0·109 | .. | . |
| 485 | ... | + 3·3887 | + 0·0407 | | + 19·514 | − 0·123 | .. | .. |
| 486 | ... | + 3·4387 | + 0·0465 | | + 19·489 | − 0·127 | . | |
| 487 | ... | + 3·2889 | + 0·0268 | .. | + 19·440 | − 0·126 | . | |
| 488 | 5381 Lacaille | + 3·3481 | + 0·0335 | . | + 19·437 | − 0·128 | | |
| 489 | 51 Virginis θ | + 3·1025 | + 0·0078 | − 0·004 | + 19·309 | − 0·133 | + 0·04 | 4401 |
| 490 | 6067 Taylor | + 3·6875 | + 0·0719 | . | + 19·285 | − 0·156 | | 4412 |

480—Proper Motions adopted from "*Radcliffe Polar List for 1855*"

*Mean Positions of Stars for 1863 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | *h.* | *m.* | *s.* | ° | ′ | ″ | | |
| 491 | ... ... ... ... | 9·2 | 1 | 13 | 4 | 28·48 | 138 | 10 | 13·4 | 1 | 0·29 |
| 492 | ... ... ... ... | 9·5 | 1 | 13 | 4 | 32·00 | 143 | 12 | 0·9 | 1 | 0·27 |
| 493 | ... ... ... ... | 8·9 | 1 | 13 | 5 | 33·90 | 124 | 16 | 11·8 | 1 | 0·32 |
| 494 | W. Virginis Var. 1 ... | 8·8 | 1 | 13 | 6 | 51·05 | 105 | 49 | 35·1 | 2 | 0·39 |
| 495 | ... ... ... ... | 9·0 | 1 | 13 | 7 | 35·75 | 139 | 45 | 53·0 | 1 | 0·28 |
| 496 | ... ... ... ... | 8·7 | 1 | 13 | 9 | 42·08 | 129 | 55 | 57·0 | 1 | 0·31 |
| 497 | 58 Virginis ... ... | 6·5 | ... | 13 | 10 | 16·63 | 99 | 49 | 23·6 | 2 | 0·40 |
| 498 | 6129 Taylor .. ... | 7·4 | 1 | 13 | 12 | 9·65 | 130 | 28 | 12·3 | 1 | 0·37 |
| 499 | ... ... ... ... | 7·9 | 1 | 13 | 12 | 49·63 | 122 | 56 | 14·5 | 1 | 0·33 |
| 500 | 5503 Lacaille .. ... | 8·0 | 1 | 13 | 14 | 5·50 | 125 | 23 | 32·1 | 1 | 0·38 |
| 501 | ... ... ... ... | 9·0 | 1 | 13 | 15 | 43·91 | 145 | 12 | 31·9 | 1 | 0·27 |
| 502 | 67 Virginis α (*Spica*) ... | 1·0 | ... | 13 | 17 | 58·68 | 100 | 26 | 42·5 | 9 | 0·36 |
| 503 | 12872 O. A. S. ... .. | 10·2 | 1 | 13 | 19 | 17·48 | 116 | 56 | 5·0 | 1 | 0·34 |
| 504 | 5546 Lacaille ... ... | 9·0 | 1 | 13 | 19 | 37·46 | 143 | 27 | 9·0 | 1 | 0·28 |
| 505 | 103 R. P. L. ... ... | 7·3 | .. | 13 | 20 | 18·58 | 4 | 31 | 44·6 | 1 | 0·93 |
| 506 | R. Hydræ Var. 1 ... .. | 6·8 | 3 | 13 | 22 | 13·91 | 112 | 34 | 19·6 | 4 | 0·31 |
| 507 | 76 Virginis *h* ... .. | 5·0 | 1 | 13 | 25 | 45·31 | 100 | 27 | 29·7 | 3 | 0·28 |
| 508 | S. Virginis Var. 6 .. | 7·4 | 4 | 13 | 25 | 50·89 | 96 | 29 | 22·2 | 4 | 0·30 |
| 509 | 79 Virginis ζ .. ... | 4·0 | ... | 13 | 27 | 42·82 | 89 | 53 | 39·8 | 12 | 0·39 |
| 510 | ... ... ... .. | 7·8 | 1 | 13 | 32 | 54·55 | 120 | 1 | 15·1 | 1 | 0·29 |
| 511 | 6363 Taylor ... .. | 8·0 | 1 | 13 | 36 | 34·58 | 147 | 33 | 9·7 | 1 | 0·29 |
| 512 | .. ... ... ... | 9·0 | 1 | 13 | 37 | 27·78 | 124 | 39 | 58·8 | 1 | 0·40 |
| 513 | ... ... .. .. | 8·8 | 1 | 13 | 38 | 10·39 | 122 | 46 | 41·4 | 1 | 0·35 |
| 514 | .. ... ... .. | 9·3 | 1 | 13 | 40 | 26·82 | 129 | 23 | 43·2 | 1 | 0·38 |
| 515 | 25463 Lalande .. ... | 9·3 | 3 | 13 | 42 | 15·16 | 64 | 57 | 26·5 | 3 | 0·32 |
| 516 | 80 Virginis ... .. | 5·7 | ... | 13 | 42 | 25·86 | 107 | 27 | 0·7 | 2 | 0·41 |
| 517 | ... ... ... ... | 8·3 | 1 | 13 | 43 | 10·81 | 123 | 6 | 14·3 | 1 | 0·35 |
| 518 | ... ... ... ... | 9·0 | 1 | 13 | 44 | 11·61 | 127 | 56 | 26·1 | 1 | 0·38 |
| 519 | .. .. ... ... | 9·7 | 1 | 13 | 45 | 19·85 | 128 | 22 | 47·0 | 1 | 0·40 |
| 520 | ... ... ... .. | 8·3 | 2 | 13 | 45 | 38·93 | 122 | 54 | 14·1 | 2 | 0·33 |
| 521 | 8 Bootis η ... .. . | 3·0 | ... | 13 | 48 | 9·62 | 70 | 54 | 51·9 | 9 | 0·40 |
| 522 | .. ... ... ... | 8·0 | 1 | 13 | 50 | 37·00 | 123 | 43 | 37·5 | 1 | 0·35 |
| 523 | 25759 Lalande ... .. | 7·6 | 4 | 13 | 54 | 30·24 | 67 | 21 | 29·6 | 5 | 0·36 |
| 524 | 93 Virginis τ .. ... | 4·5 | ... | 13 | 54 | 40·51 | 87 | 47 | 27·2 | 3 | 0·41 |
| 525 | 25896 Lalande ... ... | 7·5 | 4 | 13 | 59 | 51·48 | 67 | 10 | 35·8 | 4 | 0·33 |

494.—W. Virginis Var. 1.—Changes irregularly from 7th to 10·5 magnitude.
505.—2007 Groombridge.
506.—R. Hydræ Var. 1.—Period about 15 months.—Range, 4th to 10th magnitude.
508.—S. Virginis Var. 6.—Period 374 days.—Range, 6th to 12·5 magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 491 | ... .. ... | + 3·4868 | + 0·0459 | ... | + 19·267 | − 0·150 | ... | .. |
| 492 | ... .. ... | + 3·5687 | + 0·0562 | ... | + 19·266 | − 0·153 | ... | ... |
| 493 | .. .. .. | + 3·3292 | + 0·0282 | ... | + 19·240 | − 0·145 | .. | ... |
| 494 | W Virginis Var. 1 .. | + 3·1810 | + 0·0142 | ... | + 19·208 | − 0·142 | ... | ... |
| 495 | .. ... .. | + 3·5314 | + 0·0493 | ... | + 19·189 | − 0·158 | ... | ... |
| 496 | .. .. .. | + 3·4072 | + 0·0346 | ... | + 19·135 | − 0·157 | ... | .. |
| 497 | 58 Virginis .. | + 3·1420 | + 0·0109 | ... | + 19·120 | − 0·147 | ... | 4442 |
| 498 | 6129 Taylor ... .. | + 3·4253 | + 0·0353 | ... | + 19·069 | − 0·163 | ... | ... |
| 499 | ... ... .. | + 3·3427 | + 0·0273 | ... | + 19·051 | − 0·161 | ... | ... |
| 500 | 5503 Lacaille .. | + 3·3739 | + 0·0298 | .. | + 19·016 | − 0·164 | ... | ... |
| 501 | .. .. .. | + 3·6965 | + 0·0629 | ... | + 18·970 | − 0·183 | ... | |
| 502 | 67 Virginis α . | + 3·1544 | + 0·0100 | − 0·005 | + 18·906 | − 0·163 | + 0·04 | 4480 |
| 503 | 12872 O. A. S. . | + 3·3024 | + 0·0224 | ... | + 18·867 | − 0·172 | ... | ... |
| 504 | 5546 Lacaille .. | + 3·6862 | + 0·0589 | ... | + 18·857 | − 0·192 | .. | ... |
| 505 | 103 R. P. L. .. | − 2·7201 | + 0·9899 | ... | + 18·836 | + 0·128 | ... | 4498 |
| 506 | R Hydræ Var. 1 .. | + 3·2072 | + 0·0192 | ... | + 18·779 | − 0·176 | .. | 4501 |
| 507 | 76 Virginis *h* .. | + 3·1535 | + 0·0113 | ... | + 18·668 | − 0·176 | ... | 4521 |
| 508 | 8 Virginis Var. 6 .. | + 3·1277 | + 0·0096 | ... | + 18·664 | − 0·175 | ... | |
| 509 | 79 Virginis ζ ... | + 3·0710 | + 0·0064 | − 0·019 | + 18·605 | − 0·176 | − 0·06 | 4532 |
| 510 | ... ... . | + 3·4994 | + 0·0349 | ... | + 18·429 | − 0·210 | . | |
| 511 | 6363 Taylor . | + 3·9322 | + 0·0733 | ... | + 18·300 | − 0·243 | ... | ... |
| 512 | .. .. ... | + 3·5135 | + 0·0346 | ... | + 18·270 | − 0·220 | ... | — |
| 513 | .. ... | + 3·4297 | + 0·0283 | ... | + 18·242 | − 0·216 | ... | ... |
| 514 | .. ... .. | + 3·5350 | + 0·0356 | ... | + 18·160 | − 0·228 | ... | ... |
| 515 | 25463 Lalande . | + 2·8026 | − 0·0032 | ... | + 18·092 | − 0·184 | ... | .. |
| 516 | 89 Virginis .. | + 3·2537 | + 0·0164 | − 0·009 | + 18·085 | − 0·213 | + 0·03 | 4608 |
| 517 | ... . .. | + 3·4514 | + 0·0287 | . | + 18·057 | − 0·227 | .. | — |
| 518 | .. .. | + 3·5297 | + 0·0341 | .. | + 18·018 | − 0·235 | .. | ... |
| 519 | ... . . | + 3·5418 | + 0·0346 | ... | + 17·974 | − 0·238 | ... | . |
| 520 | ... ... ... | + 3·4568 | + 0·0286 | .. | + 17·962 | − 0·233 | . | ... |
| 521 | 8 Bootis η .. .. | + 2·8617 | − 0·0006 | − 0·004 | + 17·863 | − 0·199 | + 0·36 | 4648 |
| 522 | . .. | + 3·4863 | + 0·0295 | ... | + 17·704 | − 0·244 | | |
| 523 | 25739 Lalande ... | + 2·8047 | − 0·0016 | . | + 17·597 | − 0·204 | ... | |
| 524 | 93 Virginis τ .. | + 3·0474 | + 0·0064 | + 0·001 | + 17·506 | − 0·221 | + 0·07 | 4673 |
| 525 | 25898 Lalande | + 2·7911 | − 0·0023 | ... | + 17·374 | − 0·210 | .. | |

*Mean Positions of Stars for 1863 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 526 | 6585 Taylor ... . | 7·8 | 1 | 14 | 1 | 18·94 | 124 | 13 | 40·7 | 1 | 0·35 |
| 527 | ... ... ... ... | 9·0 | ... | 14 | 2 | 22·39 | 129 | 3 | 58·4 | 1 | 0·41 |
| 528 | 108 R. P. L. ... ... | 7·3 | ... | 14 | 4 | 4·24 | 3 | 35 | 11·3 | 2 | 0·62 |
| 529 | U Bootis Var. 4 ... ... | 9·7 | 1 | 14 | 4 | 18·65 | 79 | 32 | 14·1 | 1 | 0·40 |
| 530 | 6616 Taylor ... ... | 5·7 | ... | 14 | 5 | 26·28 | 146 | 26 | 31·9 | 1 | 0·33 |
| 531 | .. ... ... ... | 8·0 | 1 | 14 | 6 | 5·20 | 135 | 1 | 0·6 | 1 | 0·35 |
| 532 | 16 Bootis α (*Arcturus*) ... | 1·0 | ... | 14 | 9 | 24·78 | 70 | 6 | 11·5 | 5 | 0·43 |
| 533 | 100 Virginis λ .. .. | 5·0 | ... | 14 | 11 | 41·84 | 102 | 44 | 19·0 | 3 | 0·38 |
| 534 | ... . ... | 9·3 | 1 | 14 | 12 | 26·89 | 136 | 49 | 32·4 | 1 | 0·35 |
| 535 | ... ... .. ... | 8·9 | 1 | 14 | 14 | 30·90 | 122 | 35 | 29·6 | 1 | 0·33 |
| 536 | ... ... ... ... | 8·7 | ... | 14 | 15 | 15·09 | 122 | 11 | 18·7 | 1 | 0·35 |
| 537 | 6709 Taylor ... ... | 7·0 | 1 | 14 | 15 | 55·15 | 119 | 3 | 2·1 | 1 | 0·35 |
| 538 | ... ... ... ... | 9·9 | 1 | 14 | 17 | 21·04 | 123 | 13 | 6·2 | 1 | 0·33 |
| 539 | 6740 Taylor ... .. | 7·6 | 1 | 14 | 19 | 1·39 | 133 | 42 | 38·0 | 1 | 0·32 |
| 540 | ... ... ... ... | 8·7 | 1 | 14 | 21 | 53·04 | 122 | 33 | 43·7 | 1 | 0·33 |
| 541 | 5962 Lacaille ... ... | 8·0 | 1 | 14 | 22 | 38·49 | 120 | 46 | 28·6 | 1 | 0·38 |
| 542 | ... ... ... ... | 8·0 | 1 | 14 | 23 | 38·57 | 136 | 54 | 8·5 | 1 | 0·35 |
| 543 | ... ... .. ... | 8·0 | 1 | 14 | 24 | 9·13 | 123 | 48 | 17·8 | 1 | 0·34 |
| 544 | 25 Bootis ρ ... ... | 4·0 | ... | 14 | 25 | 55·47 | 59 | 1 | 33·5 | 6 | 0·42 |
| 545 | ... ... ... .. | 9·5 | 1 | 14 | 26 | 40·04 | 123 | 19 | 45·2 | 1 | 0·33 |
| 546 | ... ... .. ... | 7·8 | 1 | 14 | 29 | 23·02 | 124 | 55 | 13·4 | 1 | 0·37 |
| 547 | 6027 Lacaille ... ... | 7·7 | 1 | 14 | 31 | 0·63 | 122 | 47 | 2·2 | 1 | 0·33 |
| 548 | R Bootis Var. 1 .. .. | 8·2 | 2 | 14 | 31 | 9·02 | 62 | 40 | 3·1 | 3 | 0·38 |
| 549 | ... ... .. .. | 7·6 | 1 | 14 | 32 | 38·73 | 121 | 44 | 2·6 | 1 | 0·35 |
| 550 | 6848 Taylor ... .. | 7·7 | 1 | 14 | 32 | 44·22 | 136 | 41 | 2·4 | 1 | 0·35 |
| 551 | 5 Libræ .. ... | 6·3 | ... | 14 | 38 | 24·52 | 104 | 52 | 48·4 | 1 | 0·36 |
| 552 | 36 Bootis ε ... .. | 2·3 | ... | 14 | 39 | 0·13 | 62 | 30 | 48·1 | 5 | 0·43 |
| 553 | ... . ... | 7·7 | 1 | 14 | 39 | 16·66 | 124 | 9 | 20·8 | 1 | 0·37 |
| 554 | 27022 Lalande ... ... | 7·5 | 3 | 14 | 43 | 10·43 | 78 | 56 | 9·6 | 4 | 0·35 |
| 555 | 9 Libræ α² . ... | 2·5 | ... | 14 | 43 | 18·15 | 105 | 28 | 12·9 | 4 | 0·39 |
| 556 | 27123 Lalande .. ... | 8·2 | 3 | 14 | 47 | 20·01 | 100 | 27 | 7·9 | 4 | 0·36 |
| 557 | ... . ... | 8·9 | 1 | 14 | 51 | 31·68 | 123 | 12 | 29·6 | 1 | 0·37 |
| 558 | ... . ... | 8·3 | 1 | 14 | 57 | 38·39 | 131 | 30 | 27·2 | 1 | 0·36 |
| 559 | 43 Bootis ψ ... ... | 5·0 | ... | 14 | 58 | 34·32 | 62 | 30 | [illegible] | 5 | 0·47 |
| 560 | 7070 Taylor ... ... | 6·7 | ... | 15 | 3 | 16·26 | 128 | 7 | 1·1 | 1 | [illegible] |

528.—2000 Groombridge.
529.—U Bootis Var. 4.—Period uncertain.—Range, 8·7 to 12th magnitude.
548.—R Bootis Var. 1.—Period 223 days.—Range, 6th to 12th magnitude.
556.—Comparison star for Iris in 1861.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 526 | 6585 Taylor ... | + 3·5314 | + 0·0302 | ... | + 17·310 | − 0·268 | ... | ... |
| 527 | ... | + 3·6245 | + 0·0357 | ... | + 17·263 | − 0·276 | ... | ... |
| 528 | 108 R. P. L. ... | − 7·9195 | + 2·5264 | ... | + 17·187 | + 0·588 | ... | ... |
| 529 | U Bootis Var. 4 | + 2·9446 | + 0·0035 | ... | + 17·177 | − 0·229 | ... | ... |
| 530 | 6616 Taylor ... | + 4·1210 | + 0·0686 | ... | + 17·125 | − 0·320 | ... | 4709 |
| 531 | ... | + 3·7715 | + 0·0445 | ... | + 17·096 | − 0·295 | ... | ... |
| 532 | 16 Bootis α ... | + 2·8132 | + 0·0004 | − 0·079 | + 16·943 | − 0·227 | + 1·93 | 4729 |
| 533 | 100 Virginis λ | + 3·2363 | + 0·0140 | − 0·002 | + 16·834 | − 0·264 | − 0·02 | 4743 |
| 534 | ... | + 3·8506 | + 0·0477 | ... | + 16·798 | − 0·314 | ... | ... |
| 535 | ... | + 3·5455 | + 0·0284 | ... | + 16·699 | − 0·293 | ... | ... |
| 536 | ... | + 3·5405 | + 0·0281 | ... | + 16·662 | − 0·294 | ... | ... |
| 537 | 6709 Taylor | + 3·4872 | + 0·0252 | ... | + 16·630 | − 0·292 | ... | ... |
| 538 | ... | + 3·5659 | + 0·0292 | ... | + 16·560 | − 0·301 | ... | ... |
| 539 | 6740 Taylor ... | + 3·8007 | + 0·0423 | ... | + 16·477 | − 0·323 | ... | ... |
| 540 | ... | + 3·5675 | + 0·0285 | ... | + 16·332 | − 0·309 | ... | ... |
| 541 | 5962 Lacaille | + 3·7209 | + 0·0365 | ... | + 16·295 | − 0·324 | ... | ... |
| 542 | ... | + 3·9102 | + 0·0476 | ... | + 16·243 | − 0·342 | ... | ... |
| 543 | ... | + 3·5987 | + 0·0297 | ... | + 16·217 | − 0·316 | ... | ... |
| 544 | 25 Bootis ρ ... | + 2·5948 | − 0·0015 | − 0·008 | + 16·126 | − 0·233 | − 0·14 | 4806 |
| 545 | ... | + 3·5970 | + 0·0291 | ... | + 16·087 | − 0·321 | ... | ... |
| 546 | ... | + 3·6333 | + 0·0306 | ... | + 15·944 | − 0·329 | ... | ... |
| 547 | 6027 Lacaille | + 3·5992 | + 0·0294 | ... | + 15·857 | − 0·329 | ... | ... |
| 548 | R Bootis Var. 1 | + 2·6486 | − 0·0004 | ... | + 15·849 | − 0·244 | ... | ... |
| 549 | ... | + 3·5830 | + 0·0274 | ... | + 15·769 | − 0·330 | ... | ... |
| 550 | 6848 Taylor | + 3·9187 | + 0·0469 | ... | + 17·764 | − 0·364 | ... | ... |
| 551 | 5 Libræ | + 3·2956 | + 0·0152 | − 0·003 | + 15·452 | − 0·314 | + 0·01 | 4868 |
| 552 | 35 Bootis ε ... | + 2·6240 | − 0·0001 | − 0·005 | + 15·419 | − 0·252 | − 0·01 | 4876 |
| 553 | ... | + 3·6229 | + 0·0294 | ... | + 15·403 | − 0·349 | ... | ... |
| 554 | 27022 Lalande | + 2·9012 | + 0·0045 | ... | + 15·183 | − 0·283 | ... | ... |
| 555 | 9 Libræ α² ... | + 3·3139 | + 0·0154 | − 0·007 | + 15·176 | − 0·324 | + 0·06 | 4895 |
| 556 | 27123 Lalande | + 3·3870 | + 0·0178 | ... | + 14·943 | − 0·335 | ... | ... |
| 557 | ... | + 3·6677 | + 0·0289 | ... | + 14·696 | − 0·370 | ... | ... |
| 558 | ... | + 3·9000 | + 0·0371 | ... | + 14·326 | − 0·405 | ... | ... |
| 559 | 43 Bootis ψ ... | + 2·5833 | + 0·0010 | − 0·013 | + 14·265 | − 0·232 | 0·00 | 4960 |
| 560 | 7079 Taylor | + 3·6975 | + 0·0273 | ... | + 13·978 | − 0·393 | ... | |

*Mean Positions of Stars for 1863 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. h. | m. | s. | Mean Polar Distance. ° | ′ | ″ | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 561 | ... ... ... .. | 8·5 | 1 | 15 | 3 | 30·06 | 122 | 18 | 27·9 | 1 | 0·37 |
| 562 | 24 Libræ ι¹ ... ... | 5·6 | 1 | 15 | 4 | 25·06 | 109 | 16 | 14·5 | 2 | 0·37 |
| 563 | 111 R. P. L. .. ... | 7·0 | .. | 15 | 5 | 51·25 | 5 | 31 | 8·6 | 2 | 0·65 |
| 564 | .. . .. ... | 8·9 | 1 | 15 | 6 | 39·40 | 130 | 26 | 16·4 | 1 | 0·40 |
| 565 | 27 Libræ β ... ... | 2·0 | ... | 15 | 9 | 38·30 | 98 | 52 | 30·1 | 6 | 0·45 |
| 566 | ... ... .. ... | 9·2 | 1 | 15 | 11 | 47·26 | 130 | 23 | 46·9 | 1 | 0·38 |
| 567 | .. .. ... ... | 9·2 | 1 | 15 | 14 | 8·23 | 128 | 7 | 17·9 | 1 | 0·37 |
| 568 | S Serpentis Var. 3 ... | 10·3 | 1 | 15 | 15 | 14·94 | 75 | 11 | 28·9 | 1 | 0·40 |
| 569 | ... .. .. | 9·0 | 1 | 15 | 20 | 19·71 | 130 | 8 | 21·5 | 1 | 0·38 |
| 570 | 32 Libræ 3¹ ... ... | 4·0 | ... | 15 | 20 | 32·08 | 106 | 14 | 10·2 | 2 | 0·38 |
| 571 | ... ... . .. | 9·0 | 1 | 15 | 21 | 37·08 | 129 | 25 | 47·1 | 1 | 0·40 |
| 572 | 7220 Taylor . ... | 7·9 | 1 | 15 | 22 | 2·85 | 123 | 6 | 20·8 | 1 | 0·42 |
| 573 | 114 R. P. L. .. .. | 7·0 | ... | 15 | 22 | 52·68 | 2 | 14 | 49·8 | 1 | 0·95 |
| 574 | 7240 Taylor ... .. | 7·8 | 1 | 15 | 24 | 20·21 | 130 | 1 | 16·1 | 1 | 0·38 |
| 575 | .. .. | 7·9 | 1 | 15 | 24 | 56·73 | 122 | 43 | 24·4 | 1 | 0·37 |
| 576 | 5 Cor. Bor. α (*Alpheta*) .. | 2·0 | ... | 15 | 28 | 53·23 | 62 | 49 | 20·2 | 3 | 0·47 |
| 577 | .. ... ... | 8·8 | 1 | 15 | 28 | 55·03 | 119 | 38 | 51·0 | 1 | 0·38 |
| 578 | ... .. .. ... | 9·3 | 1 | 15 | 30 | 6·00 | 129 | 33 | 14·7 | 1 | 0·40 |
| 579 | 43 Libræ κ ... ... | 5·0 | 1 | 15 | 34 | 3·55 | 100 | 13 | 54·7 | 1 | 0·34 |
| 580 | ... ... ... ... | 8·3 | 1 | 15 | 34 | 46·79 | 129 | 1 | 16·1 | 1 | 0·38 |
| 581 | XV. 704 W. B. E. ... | 8·4 | 3 | 15 | 37 | 12·43 | 92 | 34 | 38·5 | 3 | 0·37 |
| 582 | 24 Serpentis α . .. | 2·3 | ... | 15 | 37 | 31·25 | 83 | 8 | 27·2 | 6 | 0·45 |
| 583 | 28787 Lalande ... .. | 8·4 | 2 | 15 | 42 | 2·89 | 93 | 48 | 43·2 | 3 | 0·41 |
| 584 | R Coronæ Borealis Var 1.. | 7·4 | 2 | 15 | 42 | 55·81 | 61 | 25 | 16·9 | 2 | 0·41 |
| 585 | R. Serpentis Var 2 | 9·4 | 1 | 15 | 44 | 22·70 | 74 | 26 | 27·0 | 1 | 0·37 |
| 586 | 40 Libræ θ ... | 4·7 | ... | 15 | 46 | 1·66 | 106 | 19 | 27·3 | 1 | 0·49 |
| 587 | ... ... .. .. | 7·0 | 1 | 15 | 50 | 59·46 | 143 | 45 | 3·8 | 1 | 0·41 |
| 588 | 7 Scorpii δ | 3·5 | ... | 15 | 52 | 14·19 | 112 | 13 | 43·4 | 1 | 0·49 |
| 589 | 7439 Taylor . | 8·5 | 1 | 15 | 54 | 22·01 | 126 | 44 | 53·8 | 1 | 0·38 |
| 590 | 8 Scorpii β¹ | 2·0 | . | 15 | 57 | 28·[illegible] | 100 | 25 | 38·6 | 6 | 0·44 |
| 591 | 29391 Lalande ... .. | 7·0 | 2 | 16 | 1 | 45·44 | 102 | 41 | 13·4 | 4 | 0·45 |
| 592 | 116 R. P. L. | 7·0 | ... | 16 | 4 | 55·39 | 4 | 18 | 25·9 | 3 | 0·76 |
| 593 | XVI. 83 W. B. E. | 8·0 | . | 16 | 5 | 59·73 | 102 | 40 | 55·2 | 1 | 0·41 |
| 594 | 1 Ophiuchi δ | 3·0 | . | 16 | 7 | 10·31 | 93 | 30 | 30·9 | 1 | 0·34 |
| 595 | 29610 Lalande | 8·0 | .. | 16 | 8 | 6·82 | 105 | 32 | 24·2 | 1 | 0·41 |

561.—Double :—the second star observed.
563.—2213 Groombridge.
568.—S Serpentis Var. 3.—Period 361 days.—Range, 8th to 12·5 magnitude.
573.—2283 Groombridge.
583—591—595.—Comparison stars for Donati's Comet of 1858.
584.—R Coronæ Borealis Var. 1.—Period 323 days.—Range, 6th to 13th magnitude.
585.—R Serpentis Var. 2.—Period 358 days.—Range, 6th to 11th magnitude.
592.—2423 Carrington.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. Annual Precession. | In Right Ascension. Secular Variation. | In Right Ascension. Proper Motion. | In Polar Distance. Annual Precession. | In Polar Distance. Secular Variation. | In Polar Distance. Proper Motion. | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | s | s | s | " | " | " | |
| 561 | ... ... ... | + 3·6789 | + 0·0264 | ... | + 13·963 | − 0·392 | ... | ... |
| 562 | 24 Libræ ι¹ ... ... | + 3·4089 | + 0·0171 | − 0·002 | + 13·905 | − 0·364 | + 0·04 | 4995 |
| 563 | 111 B. P. L. ... .. | − 0·9589 | + 1·1901 | ... | + 13·814 | + 0·730 | ... | 5022 |
| 564 | ... .. | + 3·9008 | + 0·0349 | ... | + 13·763 | − 0·420 | ... | .. |
| 565 | 27 Libræ β ... ... | + 3·2257 | + 0·0117 | − 0·009 | + 13·572 | − 0·353 | + 0·01 | 5034 |
| 566 | .. .. . | + 3·9169 | + 0·0343 | ... | + 13·433 | − 0·431 | ... | ... |
| 567 | . .. .. | + 3·7257 | + 0·0264 | ... | + 13·280 | − 0·414 | .. | . |
| 568 | S Serpentis Var. 3 .. | + 2·8060 | + 0·0042 | ... | + 13·206 | − 0·314 | .. | ... |
| 569 | .. ... . | + 3·9367 | + 0·0332 | ... | + 12·869 | − 0·447 | ... | ... |
| 570 | 32 Libræ ζ¹ ... ... | + 3·3709 | + 0·0148 | + 0·002 | + 12·856 | − 0·384 | + 0·05 | 5060 |
| 571 | ... ... . | + 3·9192 | + 0·0322 | ... | + 12·782 | − 0·445 | ... | ... |
| 572 | 7220 Taylor . ... | + 3·7448 | + 0·0258 | .. | + 12·754 | − 0·427 | ... | ... |
| 573 | 114 B. P. L. . ... | − 23·3003 | + 7·8117 | ... | + 12·697 | + 2·626 | .. | 5140 |
| 574 | 7240 Taylor ... ... | + 3·9456 | + 0·0325 | ... | + 12·598 | − 0·453 | .. | ... |
| 575 | .. ... ... | + 3·7419 | + 0·0252 | ... | + 12·557 | − 0·431 | ... | ... |
| 576 | 5 Coronæ Borealis α. . | + 2·5294 | + 0·0023 | + 0·009 | + 12·286 | − 0·297 | + 0·07 | 5143 |
| 577 | ... . | + 3·6736 | + 0·0224 | ... | + 12·284 | − 0·429 | ... | . |
| 578 | . .. .. | + 3·9484 | + 0·0314 | ... | + 12·202 | − 0·463 | ... | ... |
| 579 | 43 Libræ κ .. | + 3·4471 | + 0·0157 | − 0·003 | + 11·925 | − 0·409 | + 0·12 | 5170 |
| 580 | ... ... .. | + 3·9452 | + 0·0302 | ... | + 11·874 | − 0·471 | ... | ... |
| 581 | XV. 704 W. B. E. . | + 3·1211 | + 0·0089 | .. | + 11·703 | − 0·375 | ... | ... |
| 582 | 24 Serpentis α .. | + 2·9413 | + 0·0062 | + 0·009 | + 11·680 | − 0·354 | − 0·05 | 5196 |
| 583 | 28787 Lalande ... | + 3·1262 | + 0·0068 | ... | + 11·356 | − 0·381 | ... | . |
| 584 | R Cor. Bor. Var. 1 .. | + 2·4702 | + 0·0026 | ... | + 11·292 | − 0·303 | ... | 5236 |
| 585 | R Serpentis Var. 2 .. | + 2·7631 | + 0·0043 | ... | + 11·187 | − 0·340 | ... | ... |
| 586 | 46 Libræ θ ... | + 3·3987 | + 0·0136 | + 0·009 | + 11·067 | − 0·418 | − 0·12 | 5267 |
| 587 | . . . | + 4·6143 | + 0·0506 | ... | + 10·702 | − 0·575 | ... | ... |
| 588 | 7 Scorpii δ .. | + 3·5358 | + 0·0159 | − 0·001 | + 10·610 | − 0·443 | + 0·01 | 5303 |
| 589 | 7439 Taylor ... | + 3·0226 | + 0·0761 | ... | + 10·450 | − 0·493 | . | ... |
| 590 | 8 Scorpii β¹ ... ... | + 3·4777 | + 0·0142 | − 0·002 | + 10·219 | − 0·441 | + 0·02 | 5320 |
| 591 | 29391 Lalande | + 3·3339 | + 0·0113 | ... | + 9·894 | − 0·427 | | ... |
| 592 | 116 B. P. L. .. | − 12·4773 | + 1·7542 | . | + 9·652 | + 1·591 | ... | ... |
| 593 | XVI. 83 W. B. E. .. | + 3·3365 | + 0·0111 | .. | + 9·570 | − 0·431 | ... | . |
| 594 | 1 Ophiuchi δ .. | + 3·1407 | + 0·0081 | − 0·006 | + 9·480 | − 0·408 | + 0·13 | 5414 |
| 595 | 29610 Lalande | + 3·4005 | + 0·0119 | ... | + 9·406 | − 0·412 | ... | ... |

570—586—Proper Motions adopted from "*Greenwich Catalogue.*"

*Mean Positions of Stars for 1863 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 596 | R Scorpii Var. 1 ... . | 10·5 | 4 | 16 | 9 | 29·32 | 112 | 36 | 12·5 | 4 | 0·34 |
| 597 | .. ... .. ... | 10·0 | 1 | 16 | 9 | 39·76 | 112 | 33 | 22·5 | 1 | 0·54 |
| 598 | 20 Scorpii *σ* ... .. | 3·3 | . | 16 | 12 | 52·00 | 115 | 15 | 37·9 | 1 | 0·41 |
| 599 | 15552 O. A. S. ... ... | 9·0 | 1 | 16 | 13 | 10·71 | 107 | 21 | 51·8 | 1 | 0·41 |
| 600 | — — ... ... | 7·5 | 1 | 16 | 14 | 7·95 | 146 | 10 | 55·2 | 1 | 0·42 |
| 601 | U Scorpii Var. 4 ... ... | 9·0 | ... | 16 | 14 | 37·24 | 107 | 33 | 6·6 | 2 | 0·39 |
| 602 | ... ... ... | 9·5 | 1 | 16 | 15 | 42·36 | 128 | 7 | 31·7 | 1 | 0·38 |
| 603 | 15607 O. A. S. . ... | 9·0 | 2 | 16 | 16 | 48·43 | 107 | 14 | 20·3 | 3 | 0·49 |
| 604 | ... .. . ... | 9·2 | 1 | 16 | 17 | 55·39 | 129 | 30 | 26·5 | 1 | 0·40 |
| 605 | 21 Scorpii *α* (*Antares*) ... | 1·3 | ... | 16 | 21 | 0·70 | 116 | 7 | 27·8 | 7 | 0·39 |
| 606 | 23 Scorpii *τ* .. ... | 3·3 | ... | 16 | 27 | 21·53 | 117 | 55 | 42·0 | 2 | 0·34 |
| 607 | 5784 Brisbane ... .. | 9·5 | 1 | 16 | 30 | 49·55 | 150 | 39 | 19·7 | 1 | 0·55 |
| 608 | ... .. .. ... | 7·8 | 1 | 16 | 34 | 32·73 | 134 | 6 | 54·5 | 1 | 0·42 |
| 609 | 40 Herculis ζ ... ... | 2·7 | ... | 16 | 36 | 7·31 | 58 | 8 | 50·7 | 5 | 0·51 |
| 610 | 15952 O. A. S. .. ... | 9·2 | 1 | 16 | 39 | 18·72 | 111 | 55 | 24·7 | 1 | 0·38 |
| 611 | S Herculis Var. 3 ... | 7·9 | 3 | 16 | 45 | 39·68 | 74 | 49 | 31·9 | 3 | 0·40 |
| 612 | ... ... ... .. | 8·0 | 1 | 16 | 48 | 49·65 | 125 | 31 | 11·1 | 1 | 0·34 |
| 613 | 27 Ophiuchi *κ* ... ... | 3·5 | ... | 16 | 51 | 11·00 | 80 | 24 | 34·0 | 8 | 0·52 |
| 614 | ... ... ... ... | 8·2 | 1 | 16 | 52 | 1·15 | 122 | 48 | 45·1 | 1 | 0·42 |
| 615 | 16233 O. A. S. ... ... | 8·0 | 1 | 16 | 53 | 55·13 | 110 | 23 | 27·8 | 1 | 0·57 |
| 616 | 16288 O. A. S. .. ... | 7·5 | 1 | 16 | 56 | 24·05 | 119 | 50 | 1·1 | 1 | 0·41 |
| 617 | 7926 Taylor .. .. | 8·0 | 1 | 16 | 59 | 41·77 | 136 | 50 | 57·9 | 1 | 0·52 |
| 618 | 64 Herculis *α* Var. 1 . | 3·5 | .. | 17 | 8 | 24·07 | 75 | 27 | 4·2 | 9 | 0·50 |
| 619 | .. ... ... .. | 8·0 | 1 | 17 | 8 | 56·66 | 124 | 4 | 10·4 | 1 | 0·42 |
| 620 | 42 Ophiuchi *θ* ... | 3·5 | ... | 17 | 13 | 35·85 | 114 | 51 | 32·7 | 9 | 0·52 |
| 621 | 44 Ophiuchi *b* | 5·0 | 1 | 17 | 18 | 0·33 | 114 | 2 | 44·1 | 2 | 0·42 |
| 622 | 45 Ophiuchi *d* ... .. | 5·0 | | 17 | 19 | 36·50 | 119 | 44 | 21·7 | 1 | 0·34 |
| 623 | 3 Aræ ... | 4·0 | .. | 17 | 18 | 44·27 | 150 | 33 | 53·2 | 1 | 0·57 |
| 624 | . ... | 8·8 | 2 | 17 | 28 | 21·22 | 125 | 14 | 35·7 | 2 | 0·57 |
| 625 | 55 Ophiuchi *α* .. | 2·0 | | 17 | 28 | 34·50 | 77 | 20 | 16·4 | 5 | 0·49 |
| 626 | | 10·2 | 1 | 17 | 34 | 30·41 | [illegible] | 15 | 2·1 | 1 | 0·64 |
| 627 | 58 Ophiuchi | 5·0 | | 17 | 35 | 13·22 | 111 | 36 | 46·7 | 2 | 0·49 |
| 628 | .. .. | 8·5 | 1 | 17 | 39 | 29·41 | 127 | 21 | 33·1 | 1 | 0·61 |
| 629 | | 8·0 | 1 | 17 | 39 | 51·70 | 126 | 28 | 18·6 | 1 | 0·42 |
| 630 | ... . | 7·7 | 1 | 17 | 43 | 16·46 | 128 | 36 | 10·7 | 1 | 0·49 |

596.—R Scorpii Var. 1.—Period 223 days.—Range, 9th magnitude to invisibility.
601.—U Scorpii Var. 4.—A new temporary star, about 9th magnitude when brightest.
602.—Comparison star for U Scorpii Var. 4 on its discovery.
611.—S Herculis Var. 3.—Period 308 days.—Range, 6th to 12th magnitude.
618.—*α* Herculis Var. 1.—Supposed to change irregularly from 3rd to 4th magnitude.
624–626–628–630.—Comparison stars for Donati's Comet of 1858.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 596 | R Scorpii Var. 1 .. | + 3·5652 | + 0·0147 | ... | + 9·300 | − 0·465 | ... | ... |
| 597 | ... ... ... | + 3·5643 | + 0·0147 | ... | + 9·286 | − 0·465 | ... | ... |
| 598 | 20 Scorpii σ .. ... | + 3·3653 | + 0·0156 | − 0·003 | + 9·038 | − 0·478 | − 0·01 | 5447 |
| 599 | 15552 O. A. S. . | + 3·4456 | + 0·0121 | ... | + 9·013 | − 0·453 | ... | ... |
| 600 | ... ... . | + 4·8588 | + 0·0492 | ... | + 8·938 | − 0·638 | ... | ... |
| 601 | U Scorpii Var. 4 ... | + 3·4511 | + 0·0121 | ... | + 8·900 | − 0·455 | ... | ... |
| 602 | . ... .. | + 4·0146 | + 0·0283 | ... | + 8·815 | − 0·530 | ... | ... |
| 603 | 15607 O. A. S. | + 3·4455 | + 0·0118 | ... | + 8·728 | − 0·457 | .. | ... |
| 604 | ... ... . | + 4·0670 | + 0·0240 | ... | + 8·640 | − 0·540 | ... | ... |
| 605 | 21 Scorpii α .. .. | + 3·6675 | + 0·0150 | − 0·001 | + 8·396 | − 0·491 | + 0·03 | 5498 |
| 606 | 23 Scorpii τ ... .. | + 3·7237 | + 0·0152 | − 0·001 | + 7·888 | − 0·452 | + 0·02 | 5539 |
| 607 | 5784 Brisbane ... | + 5·2725 | + 0·0545 | ... | + 7·608 | − 0·715 | ... | 5554 |
| 608 | ... .. .. | + 4·2794 | + 0·0247 | ... | + 7·306 | − 0·584 | ... | ... |
| 609 | 40 Herculis ζ .. | + 2·2963 | + 0·0033 | − 0·034 | + 7·178 | − 0·316 | − 0·45 | 5604 |
| 610 | 15952 O. A. S. ... | + 3·5772 | + 0·0114 | ... | + 6·916 | − 0·493 | ... | ... |
| 611 | S Herculis Var. 3 ... | + 2·7283 | + 0·0039 | ... | + 6·392 | − 0·380 | ... | ... |
| 612 | ... ... ... | + 3·9808 | + 0·0156 | ... | + 6·129 | − 0·556 | ... | ... |
| 613 | 27 Ophiuchi κ ... | + 2·8562 | + 0·0043 | − 0·023 | + 5·932 | − 0·401 | − 0·02 | 5708 |
| 614 | ... ... ... | + 3·8965 | + 0·0137 | ... | + 5·862 | − 0·547 | ... | ... |
| 615 | 16233 O. A. S. ... | + 3·5485 | + 0·0093 | ... | + 5·703 | − 0·498 | ... | ... |
| 616 | 16288 O. A. S. .. | + 3·8095 | + 0·0119 | ... | + 5·494 | − 0·537 | ... | ... |
| 617 | 7926 Taylor ... ... | + 4·4492 | + 0·0203 | ... | + 5·217 | − 0·629 | ... | ... |
| 618 | 64 Herculis α Var 1.. | + 2·7339 | + 0·0035 | − 0·003 | + 4·477 | − 0·391 | − 0·04 | 5821 |
| 619 | ... ... .. | + 3·9538 | + 0·0113 | ... | + 4·431 | − 0·565 | ... | ... |
| 620 | 42 Ophiuchi θ ... | + 3·6787 | + 0·0060 | − 0·003 | + 4·033 | − 0·528 | − 0·02 | 5851 |
| 621 | 44 Ophiuchi b .. | + 3·6586 | + 0·0073 | − 0·002 | + 3·654 | − 0·527 | + 0·12 | 5876 |
| 622 | 45 Ophiuchi d .. | + 3·8235 | + 0·0084 | − 0·002 | + 3·602 | − 0·551 | + 0·18 | 5881 |
| 623 | θ Aræ .. .. | + 5·4032 | + 0·0263 | − 0·009 | + 3·591 | − 0·777 | + 0·09 | 5877 |
| 624 | ... ... .. | + 4·0076 | + 0·0079 | ... | + 2·761 | − 0·580 | ... | ... |
| 625 | 55 Ophiuchi α | + 2·7744 | + 0·0030 | + 0·004 | + 2·741 | − 0·402 | + 0·20 | 5941 |
| 626 | ... ... .. | + 4·0164 | + 0·0069 | ... | + 2·227 | − 0·587 | ... | ... |
| 627 | 58 Ophiuchi ... | + 3·5987 | + 0·0050 | − 0·010 | + 2·164 | − 0·523 | − 0·04 | 5987 |
| 628 | ... .. .. | + 4·0857 | + 0·0060 | ... | + 1·792 | − 0·595 | ... | ... |
| 629 | .. ... ... | + 4·0566 | + 0·0057 | ... | + 1·760 | − 0·591 | ... | ... |
| 630 | .. ... .. | + 4·1367 | + 0·0052 | ... | + 1·462 | − 0·603 | ... | ... |

613 – 623.—Proper Motions adopted from "*Stone's Catalogue.*"
622.—Proper Motion in Right Ascension taken from "*Greenwich Catalogue.*"

*Mean Positions of Stars for 1863 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 631 | ... ... ... ... | 9·0 | 1 | 17 | 44 | 58·68 | 128 | 47 | 40·0 | 1 | 0·55 |
| 632 | 7504 Lacaille ... ... | 7·0 | 1 | 17 | 48 | 28·07 | 129 | 6 | 46·9 | 1 | 0·44 |
| 633 | ... ... ... ... | 8·7 | 1 | 17 | 50 | 20·87 | 130 | 50 | 17·6 | 1 | 0·49 |
| 634 | 4 Sagittarii *b* ... .. | 5·0 | 1 | 17 | 51 | 25·62 | 113 | 47 | 59·7 | 2 | 0·49 |
| 635 | $\gamma^1$ Sagittarii Var 6 ... | 5·5 | ... | 17 | 56 | 16·20 | 119 | 34 | 56·7 | 1 | 0·42 |
| 636 | ... ... ... ... | 9·0 | 2 | 18 | 2 | 45·18 | 131 | 44 | 29·4 | 2 | 0·56 |
| 637 | ... ... ... ... | 10·5 | 1 | 18 | 4 | 45·03 | 120 | 43 | 36·2 | 1 | 0·65 |
| 638 | 13 Sagittarii $\mu^1$ ... ... | 4·5 | ... | 18 | 5 | 34·17 | 111 | 5 | 28·3 | 9 | 0·53 |
| 639 | ... ... ... ... | 8·0 | 1 | 18 | 6 | 1·14 | 122 | 25 | 10·8 | 1 | 0·44 |
| 640 | 23 Ursæ Minoris δ .. | 4·5 | ... | 18 | 16 | 32·44 | 3 | 23 | 47·7 | 9 | 0·08 |
| 641 | 22 Sagittarii λ ... ... | 4·0 | ... | 18 | 19 | 30·91 | 115 | 29 | 36·7 | 1 | 0·42 |
| 642 | $\delta^2$ Telescopii ... ... | 5·0 | ... | 18 | 21 | 53·73 | 135 | 50 | 49·0 | 1 | 0·64 |
| 643 | ... ... ... ... | 8·9 | 1 | 18 | 28 | 12·72 | 135 | 34 | 34·5 | 1 | 0·64 |
| 644 | 3 Lyræ α (*Vega*) ... ... | 1·0 | ... | 18 | 32 | 17·94 | 51 | 20 | 31·7 | 6 | 0·58 |
| 645 | ... ... ... ... | 8·9 | 4 | 18 | 35 | 44·46 | 137 | 11 | 4·0 | 4 | 0·61 |
| 646 | 7872 Lacaille ... ... | 6·3 | 1 | 18 | 42 | 15·77 | 136 | 45 | 6·9 | 1 | 0·65 |
| 647 | 7878 Lacaille ... ... | 6·5 | 1 | 18 | 42 | 48·83 | 136 | 44 | 43·0 | 1 | 0·60 |
| 648 | 10 Lyræ β Var 1... ... | 4·0 | ... | 18 | 45 | 1·25 | 56 | 47 | 40·6 | 4 | 0·59 |
| 649 | ... ... ... ... | 8·0 | 1 | 18 | 46 | 49·55 | 137 | 44 | 59·3 | 1 | 0·70 |
| 650 | 13 Lyræ Var. 2 ... ... | 4·3 | ... | 18 | 51 | 9·74 | 46 | 13 | 59·4 | 1 | 0·58 |
| 651 | ... ... ... ... | 9·3 | ... | 18 | 51 | 58·50 | 140 | 55 | 55·2 | 1 | 0·64 |
| 652 | 39 Sagittarii ο ... ... | 4·7 | ... | 18 | 56 | 28·24 | 111 | 56 | 18·6 | 2 | 0·49 |
| 653 | 17 Aquilæ ζ ... ... | 3·3 | ... | 18 | 59 | 6·69 | 76 | 20 | 16·0 | 7 | 0·62 |
| 654 | 131 R. P. L. ... ... | 6·5 | ... | 18 | 59 | 10·45 | 3 | 28 | 4·4 | 2 | 0·13 |
| 655 | R Aquilæ Var. 2 ... ... | 9·3 | 1 | 18 | 59 | 46·23 | 81 | 58 | 30·2 | 1 | 0·56 |
| 656 | 41 Sagittarii π | 4·5 | ... | 19 | 1 | 30·77 | 111 | 14 | 16·6 | 2 | 0·57 |
| 657 | ... ... ... ... | 8·0 | 1 | 19 | 3 | 1·64 | 139 | 22 | 47·1 | 1 | 0·53 |
| 658 | T Sagittarii Var. 3 .. | 9·0 | 3 | 19 | 8 | 19·76 | 107 | 13 | 28·3 | 4 | 0·61 |
| 659 | R Sagittarii Var. 1 .. | 8·0 | 3 | 19 | 8 | 39·23 | 109 | 32 | 43·8 | 2 | 0·68 |
| 660 | .. .. .. .. | 5·4 | 2 | 19 | 9 | 56·43 | 107 | 9 | 46·0 | 3 | 0·60 |

631—632—636—643—645—646—647.—Comparison stars for Donati's Comet of 1858.
635.—$\gamma^1$ Sagittarii Var. 6.—Period 7·59 days.—Range, 5th to 6th magnitude
637.—Observed by mistake for Amphitrite.
648.—β Lyræ Var 1.—Period 12·91 days.—Range, 3·5 to 4·5 magnitude.
650.—13 Lyræ Var 2.—Period 46 days.—Range, 4·2 to 4·6 magnitude
654.—2[illegible]82 Carringt[illegible]
655.—R Aquilæ Var. 2.—Period 343 days.—Range, 6·5 to 11th magnitude.
658.—T Sagittarii Var. 3.—Period 381 days.—Range, 7·5 magnitude to invisibility
659.—R Sagittari Var. 1.—Period 270 days.—Range, 7th magnitude to invisibility.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance | | | Number in B. A. C |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 631 | ... .. | + 4·1446 | + 0·0019 | .. | + 1·314 | − 0·601 | ... | ... |
| 632 | 7501 Lacaille .. | + 4·1578 | + 0·0042 | ... | + 1·008 | − 0·606 | ... | ... |
| 633 | ... ... .. | + 4·2267 | + 0·0042 | ... | + 0·844 | − 0·616 | ... | ... |
| 634 | 4 Sagittarii *b* ... .. | + 3·6614 | + 0·0028 | − 0·005 | + 0·750 | − 0·533 | + 0·04 | 6077 |
| 635 | $\gamma^1$ Sagittarii Var. 6 .. | + 3·8310 | + 0·0022 | ... | + 0·326 | − 0·559 | ... | 6107 |
| 636 | .. ... .. | + 4·2650 | + 0·0007 | ... | − 0·241 | − 0·622 | ... | ... |
| 637 | ... .. .. | + 3·8666 | + 0·0007 | ... | − 0·416 | − 0·564 | .. | ... |
| 638 | 13 Sagittarii $\mu^1$ .. | + 3·5875 | + 0·0009 | − 0·004 | − 0·487 | − 0·523 | + 0·01 | 6168 |
| 639 | ... ... ... | + 3·9209 | + 0·0008 | ... | − 0·527 | − 0·572 | ... | ... |
| 640 | 23 Urs. Min. δ .. | + 19·3952 | − 0·4838 | + 0·048 | − 1·446 | + 2·823 | − 0·08 | 6281 |
| 641 | 22 Sagittarii λ .. | + 3·7073 | − 0·0013 | − 0·005 | − 1·706 | − 0·537 | + 0·24 | 6263 |
| 642 | $\delta^2$ Telescopii ... | + 4·4428 | − 0·0057 | ... | − 1·913 | − 0·642 | ... | 6282 |
| 643 | ... ... .. | + 4·4259 | − 0·0073 | ... | − 2·462 | − 0·640 | ... | ... |
| 644 | 3 Lyræ α ... .. | + 2·0130 | + 0·0016 | − 0·017 | − 2·817 | − 0·290 | − 0·28 | 6355 |
| 645 | ... ... .. | + 4·4976 | − 0·0103 | ... | − 3·115 | − 0·647 | ... | ... |
| 646 | 7572 Lacaille .. | + 4·4694 | − 0·0122 | ... | − 3·677 | − 0·639 | ... | ... |
| 647 | 7578 Laicaille ... | + 4·4685 | − 0·0124 | ... | − 3·725 | − 0·638 | ... | ... |
| 648 | 10 Lyræ β Var. 1 ... | + 2·2137 | + 0·0015 | − 0·002 | − 3·914 | − 0·315 | + 0·03 | 6429 |
| 649 | ... ... .. | + 4·5134 | − 0·0142 | ... | − 4·069 | − 0·643 | ... | ... |
| 650 | 13 Lyræ Var. 2 ... | + 1·8282 | + 0·0008 | − 0·001 | − 4·440 | − 0·257 | 0·00 | 6473 |
| 651 | ... ... .. | + 5·3223 | − 0·0307 | ... | − 4·510 | − 0·754 | ... | ... |
| 652 | 39 Sagittarii ο .. | + 3·5944 | − 0·0053 | + 0·001 | − 4·892 | − 0·506 | + 0·05 | 6507 |
| 653 | 17 Aquilæ ζ .. ... | + 2·7578 | + 0·0003 | − 0·006 | − 5·116 | − 0·387 | + 0·07 | 6528 |
| 654 | 131 B. P. L. ... .. | − 18·2584 | − 1·6194 | ... | − 5·121 | + 1·027 | ... | ... |
| 655 | R Aquilæ Var. 2 ... | + 2·8900 | − 0·0003 | ... | − 5·171 | − 0·405 | ... | ... |
| 656 | 41 Sagittarii π ... | + 3·5730 | − 0·0057 | − 0·004 | − 5·327 | − 0·500 | + 0·03 | 6548 |
| 657 | .. .. .. | + 4·5723 | − 0·0208 | ... | − 5·446 | − 0·640 | . | .. |
| 658 | T Sagittarii Var. 3 .. | + 3·4670 | − 0·0054 | ... | − 5·891 | − 0·480 | ... | ... |
| 659 | R Sagittarii Var. 1 .. | + 3·3256 | − 0·0060 | ... | − 5·918 | − 0·488 | ... | ... |
| 660 | .. ... .. | + 3·4659 | − 0·0055 | ... | − 6·025 | − 0·479 | ... | ... |

650.—Proper Motion in Polar Distance from "*Greenwich Catalogue.*"

*Mean Positions of Stars for 1868 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | *h.* | *m.* | *s.* | ° | ′ | ″ | | |
| 661 | ... ... ... ... | 8·0 | 1 | 19 | 9 | 59·69 | 146 | 13 | 2·1 | 1 | 0·52 |
| 662 | 25 Aquilæ $\omega$ ... ... | 5·7 | ... | 19 | 11 | 23·11 | 78 | 33 | 57·4 | 5 | 0·63 |
| 663 | 44 Sagittarii $\rho^1$ ... ... | 4·5 | ... | 19 | 13 | 43·46 | 108 | 6 | 7·1 | 2 | 0·50 |
| 664 | 45 Sagittarii $\rho^2$ ... ... | 5·5 | ... | 19 | 13 | 51·24 | 108 | 33 | 32·8 | 1 | 0·64 |
| 665 | 30 Aquilæ $\delta$ ... ... | 3·5 | ... | 19 | 18 | 35·33 | 87 | 9 | 20·4 | 4 | 0·64 |
| 666 | 8959 Taylor ... ... | 6·0 | 1 | 19 | 22 | 3·94 | 143 | 28 | 11·1 | 1 | 0·52 |
| 667 | 52 Sagittarii $h^2$ ... ... | 5·0 | ... | 19 | 28 | 21·93 | 115 | 10 | 57·8 | 2 | 0·61 |
| 668 | . ... ... ... | 8·7 | ... | 19 | 31 | 32·04 | 143 | 15 | 37·3 | 1 | 0·52 |
| 669 | R Cygni Var. 3 ... ... | 10·3 | 1 | 19 | 33 | 10·30 | 40 | 4 | 55·5 | 1 | 0·64 |
| 670 | 56 Sagittarii $f$ .. ... | 5·3 | ... | 19 | 38 | 22·08 | 110 | 5 | 8·1 | 1 | 0·42 |
| 671 | 50 Aquilæ $\gamma$ ... .. | 3·0 | ... | 19 | 39 | 44·64 | 79 | 43 | 5·3 | 5 | 0·66 |
| 672 | 53 Aquilæ $\alpha$ (*Altair*) ... | 1·3 | ... | 19 | 44 | 5·86 | 81 | 29 | 28·1 | 2 | 0·67 |
| 673 | $\chi$ Cygni Var. 2 ... ... | 5·7 | 1 | 19 | 45 | 17·88 | 57 | 25 | 51·3 | 1 | 0·58 |
| 674 | 55 Aquilæ $\eta$ Var. 1 ... | 5·0 | 2 | 19 | 45 | 29·50 | 89 | 20 | 36·6 | 2 | 0·65 |
| 675 | 60 Aquilæ $\beta$ ... ... | 4·3 | ... | 19 | 48 | 34·88 | 83 | 55 | 59·2 | 5 | 0·69 |
| 676 | ... ... ... ... | 8·5 | 1 | 19 | 49 | 28·86 | 145 | 56 | 59·3 | 1 | 0·53 |
| 677 | ... ... ... ... | 9·2 | 1 | 19 | 52 | 55·25 | 147 | 11 | 2·4 | 1 | 0·64 |
| 678 | $\lambda$ Ursæ Minoris ... ... | 6·3 | ... | 20 | 1 | 3·90 | 1 | 6 | 4·3 | 3 | 0·15 |
| 679 | R Capricorni Var. 1 ... | 9·9 | 2 | 20 | 3 | 37·14 | 104 | 40 | 13·6 | 2 | 0·71 |
| 680 | ... ... ... ... | 8·2 | 1 | 20 | 4 | 6·47 | 147 | 14 | 43·1 | 1 | 0·53 |
| 681 | ... ... ... ... | 9·2 | 1 | 20 | 7 | 38·36 | 81 | 22 | 38·0 | 1 | 0·70 |
| 682 | R Sagittæ Var. 1 ... ... | 9·7 | 2 | 20 | 7 | 49·50 | 73 | 41 | 10·8 | 2 | 0·67 |
| 683 | 5 Capricorni $\alpha^1$ ... .. | 4·0 | ... | 20 | 10 | 3·01 | 102 | 55 | 43·7 | 1 | 0·50 |
| 684 | 6 Capricorni $\alpha^2$ ... ... | 3·5 | ... | 20 | 10 | 26·98 | 102 | 58 | 1·1 | 7 | 0·64 |
| 685 | 34 Cygni Var. 1 ... ... | 5·9 | 3 | 20 | 12 | 44·35 | 52 | 23 | 30·3 | 3 | 0·72 |
| 686 | $\alpha$ Pavonis ... ... .. | 2·0 | ... | 20 | 14 | 47·13 | 147 | 10 | 14·4 | 1 | 0·57 |
| 687 | 8441 Lacaille ... ... | 8·6 | 1 | 20 | 18 | 9·46 | 121 | 7 | 9·6 | 1 | 0·76 |
| 688 | 11 Capricorni $\rho$ ... .. | 5·0 | .. | 20 | 21 | 2·49 | 108 | 15 | 50·2 | 12 | 0·67 |
| 689 | . ... ... .. | 8·8 | 1 | 20 | 27 | 46·43 | 143 | 16 | 38·9 | 1 | 0·76 |
| 690 | 24 Cephei (*Her*) Var. 4 | 7·9 | 1 | 20 | 28 | 56·11 | 1 | 17 | 22·1 | 1 | 0·77 |

669.—R Cygni Var. 3.—Period 425 days.—Range, 7th magnitude to invisibility.
673.—$\chi$ Cygni Var. 2.—Period 406 days.—Range, 4th magnitude to invisibility.
674.—$\eta$ Aquilæ Var. 1.—Period 7·176 days.—Range, 3·5 to 4·7 magnitude.
679.—R Capricorni Var. 1.—Period 347 days.—Range, 9th magnitude to invisibility.
682.—R Sagittæ Var. 1.—Period 70·4 days.—Range, 8·3 to 10·3 magnitude.
685.—34 Cygni Var. 1.—Supposed to vary from 3rd to 6th magnitude in many years.
690.—144 R. P. L. = 24 Cephei (*Her*) Var. 4.—Changes from 5th to 11th magnitude in many years.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. Annual Precession. | In Right Ascension. Secular Variation. | In Right Ascension. Proper Motion. | In Polar Distance. Annual Precession. | In Polar Distance. Secular Variation. | In Polar Distance. Proper Motion. | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | s | s | s | " | " | " | |
| 661 | ... .. . | + 4·9781 | − 0·0328 | ... | − 6·030 | − 0·689 | . | ... |
| 662 | 25 Aquilæ ω ... .. | + 2·8165 | − 0·0008 | − 0·003 | − 6·146 | − 0·388 | − 0·02 | 6595 |
| 663 | 44 Sagittarii ρ¹ .. | + 3·4867 | − 0·0061 | − 0·008 | − 6·340 | − 0·480 | − 0·03 | 6619 |
| 664 | 45 Sagittarii ρ² .. | + 3·4979 | − 0·0062 | + 0·007 | − 6·351 | − 0·481 | + 0·05 | 6620 |
| 665 | 30 Aquilæ δ ... .. | + 3·0094 | − 0·0018 | − 0·014 | − 6·744 | − 0·410 | − 0·10 | 6646 |
| 666 | 8950 Taylor ... .. | + 4·7625 | − 0·0327 | ... | − 7·029 | − 0·647 | ... | 6669 |
| 667 | 52 Sagittarii h² . | + 3·6513 | − 0·0102 | − 0·002 | − 7·513 | − 0·490 | − 0·02 | 6706 |
| 668 | ... ... .. | + 3·7222 | − 0·0358 | . . | − 7·798 | − 0·631 | ... | ... |
| 669 | R Cygni Var. 3 . | + 1·6129 | + 0·0015 | ... | − 7·931 | − 0·213 | ... | ... |
| 670 | 56 Sagittarii *f* . | + 3·5166 | − 0·0091 | ... | − 8·346 | − 0·462 | ... | 6760 |
| 671 | 50 Aquilæ γ .. ... | + 2·8520 | − 0·0011 | + 0·001 | − 8·485 | − 0·373 | 0·00 | 6772 |
| 672 | 53 Aquilæ α ... .. | + 2·8922 | − 0·0014 | + 0·036 | − 8·800 | − 0·374 | − 0·38 | 6802 |
| 673 | χ Cygni Var. 2 .. | − 2·3067 | + 0·0013 | ... | − 8·895 | − 0·297 | ... | ... |
| 674 | 55 Aquilæ η Var. 1 .. | + 3·0584 | − 0·0031 | − 0·001 | − 8·908 | − 0·396 | + 0·04 | 6811 |
| 675 | 60 Aquilæ β ... .. | + 2·9455 | − 0·0020 | + 0·002 | − 9·151 | − 0·378 | + 0·47 | 6833 |
| 676 | ... .. ... | + 4·8290 | − 0·0479 | ... | − 9·223 | − 0·621 | ... | ... |
| 677 | ... ... ... | + 4·8988 | − 0·0523 | ... | − 9·486 | − 0·626 | . | ... |
| 678 | λ Ursæ Minoris .. | + 57·0008 | − 29·8260 | − 0·035 | − 10·109 | + 7·185 | − 0·01 | 6999 |
| 679 | R Capricorni Var. 1.. | + 3·3724 | − 0·0087 | ... | − 10·301 | − 0·418 | ... | ... |
| 680 | ... ... .. | + 4·8530 | − 0·0563 | ... | − 10·337 | − 0·602 | ... | ... |
| 681 | ... ... .. | + 2·9000 | − 0·0017 | ... | − 10·600 | − 0·354 | ... | ... |
| 682 | R Sagittæ Var. 1 .. | + 2·7400 | − 0·0020 | ... | − 10·617 | − 0·186 | ... | ... |
| 683 | 5 Capricorni α¹ .. | + 3·3309 | − 0·0084 | − 0·002 | − 10·770 | − 0·406 | 0·00 | 6972 |
| 684 | 6 Capricorni α² ... | + 3·3313 | − 0·0084 | + 0·001 | − 10·810 | − 0·403 | 0·00 | 6974 |
| 685 | 34 Cygni Var. 1 .. | + 2·2101 | + 0·0019 | ... | − 10·977 | − 0·265 | ... | 6990 |
| 686 | α Pavonis ... ... | + 4·7960 | − 0·0594 | 0·000 | − 11·127 | − 0·594 | + 0·10 | 7004 |
| 687 | 8441 Lacaille .. | + 3·7369 | − 0·0192 | ... | − 11·371 | − 0·444 | ... | .. |
| 688 | 11 Capricorni ρ .. | + 3·4323 | − 0·0115 | − 0·006 | − 11·578 | − 0·403 | + 0·01 | 7042 |
| 689 | ... ... . | + 4·5044 | − 0·0515 | ... | − 12·053 | − 0·520 | ... | ... |
| 690 | 24 Cephei (*Her*) V. 4. | − 44·2190 | − 23·9005 | ... | − 12·134 | + 5·140 | ... | 7154 |

690.—Proper Motion adopted from "*Stone's Catalogue.*"

*Mean Positions of Stars for 1863 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 691 | ... ... ... ... | 9·0 | 1 | 20 | 29 | 40·82 | 143 | 52 | 11·6 | 1 | 0·75 |
| 692 | 143 B. P. L. ... ... | 6·7 | ... | 20 | 29 | 50·61 | 5 | 18 | 42·2 | 1 | 0·76 |
| 693 | ... ... ... ... | 8·1 | 1 | 20 | 30 | 47·79 | 149 | 55 | 34·7 | 1 | 0·77 |
| 694 | S Capricorni Var. 2 ... | 9·2 | 2 | 20 | 33 | 53·85 | 109 | 32 | 31·3 | 2 | 0·67 |
| 695 | ... ... ... ... | 9·0 | 2 | 20 | 36 | 44·83 | 73 | 23 | 17·2 | 2 | 0·65 |
| 696 | 50 Cygni α (*Deneb*) ... | 1·7 | ... | 20 | 36 | 45·61 | 45 | 12 | 29·3 | 1 | 0·57 |
| 697 | S Delphini Var. 2 .. | 8·9 | 1 | 20 | 36 | 46·06 | 73 | 24 | 9·9 | 1 | 0·77 |
| 698 | ... ... ... ... | 9·3 | 1 | 20 | 38 | 4·22 | 143 | 3 | 29·6 | 1 | 0·76 |
| 699 | 2 Aquarii ε ... ... | 4·0 | ... | 20 | 40 | 15·30 | 99 | 59 | 42·4 | 1 | 0·65 |
| 700 | 8571 Lacaille ... ... | 7·7 | 1 | 20 | 42 | 48·35 | 150 | 13 | 10·8 | 1 | 0·77 |
| 701 | 9633 Taylor ... ... | 7·0 | 1 | 20 | 44 | 30·80 | 101 | 57 | 0·6 | 1 | 0·50 |
| 702 | 6 Aquarii μ .. ... | 5·0 | ... | 20 | 45 | 15·65 | 99 | 29 | 42·9 | 1 | 0·65 |
| 703 | ... ... ... .. | 8·9 | 1 | 20 | 47 | 35·56 | 119 | 2 | 5·8 | 1 | 0·77 |
| 704 | 32 Vulpeculæ ... .. | 5·5 | ... | 20 | 48 | 43·21 | 62 | 27 | 41·9 | 2 | 0·68 |
| 705 | ... ... ... ... | 9·4 | 1 | 20 | 53 | 53·28 | 142 | 50 | 27·0 | 1 | 0·76 |
| 706 | R Vulpeculæ Var. 2 .. | 10·0 | 2 | 20 | 58 | 23·33 | 66 | 42 | 54·9 | 2 | 0·69 |
| 707 | ... ... ... ... | 9·8 | 1 | 20 | 58 | 30·79 | 148 | 52 | 55·0 | 1 | 0·77 |
| 708 | 9772 Taylor (1st) ... | 7·5 | 1 | 21 | 0 | 23·07 | 145 | 7 | 32·1 | 1 | 0·70 |
| 709 | 67 Cygni (1st) ... ... | 5·3 | ... | 21 | 0 | 45·44 | 51 | 55 | 22·8 | 1 | 0·63 |
| 710 | 13 Aquarii ν ... ... | 5·0 | ... | 21 | 2 | 7·61 | 101 | 55 | 27·4 | 2 | 0·50 |
| 711 | 64 Cygni ζ .. .. | 3·5 | ... | 21 | 7 | 6·31 | 60 | 20 | 1·6 | 6 | 0·74 |
| 712 | 8748 Lacaille ... .. | 8·9 | 1 | 21 | 9 | 43·32 | 145 | 7 | 56·0 | 1 | 0·70 |
| 713 | 22 Aquarii β .. ... | 3·0 | ... | 21 | 24 | 20·65 | 96 | 10 | 20·1 | 11 | 0·74 |
| 714 | ... ... ... . | 9·0 | 1 | 21 | 25 | 45·04 | 140 | 23 | 42·6 | 1 | 0·70 |
| 715 | 23 Aquarii ξ ... .. | 5·3 | .. | 21 | 30 | 27·30 | 98 | 28 | 1·5 | 3 | 0·65 |
| 716 | 10032 Taylor .. .. | 6·3 | 1 | 21 | 30 | 37·36 | 142 | 58 | 30·5 | 1 | 0·76 |
| 717 | 10065 Taylor ... .. | 6·2 | 1 | 21 | 34 | 23·88 | 145 | 7 | 22·2 | 1 | 0·77 |
| 718 | 8 Pegasi ε . .. | 2·3 | | 21 | 37 | 27·38 | 80 | 45 | 6·2 | 6 | 0·75 |
| 719 | μ Cephei Var. 1 . .. | 5·4 | 3 | 21 | 39 | 18·86 | 31 | 50 | 51·5 | 3 | 0·72 |
| 720 | 16 Pegasi .. | 5·5 | | 21 | 46 | 49·73 | 64 | 43 | 7·4 | 5 | 0·76 |
| 721 | 10120 Taylor ... | 6·0 | 1 | 21 | 51 | 1·58 | 146 | 32 | 12·3 | 1 | 0·78 |
| 722 | .. .. | 9·7 | 2 | 21 | 53 | 46·70 | 130 | 49 | 33·8 | 2 | 0·74 |
| 723 | .. .. | 9·3 | 1 | 21 | 58 | 8·61 | 136 | 2 | 51·4 | 1 | 0·70 |
| 724 | 34 Aquarii α .. | 3·0 | ... | 21 | 58 | 41·70 | 90 | 59 | 3·8 | 5 | 0·76 |
| 725 | ... .. | 9·6 | 2 | 22 | 5 | 21·21 | [illegible] | 6 | 5·4 | 2 | 0·76 |

692.—3128 Carrington.
694.—S Capricorni Var. 2.—Supposed to change from 9th to 11th magnitude.
697.—S Delphini Var. 2.—Period 276 days.—Range, 8th to 11th magnitude.
706.—R Vulpeculæ Var. 2.—Period 137 days.—Range, 7·5 to 13th magnitude.
719.—μ Cephei Var. 1.—Changes irregularly from 4th to 6th magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. Annual Precession. | In Right Ascension. Secular Variation. | In Right Ascension. Proper Motion. | In Polar Distance. Annual Precession. | In Polar Distance. Secular Variation. | In Polar Distance. Proper Motion. | Number in R. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | s | s | s | " | " | " | |
| 691 | ... ... | + 4·5267 | − 0·0535 | ... | − 12·157 | − 0·519 | ... | ... |
| 692 | 143 R. P. L. .. .. | − 8·3124 | − 1·2561 | .. | − 12·198 | + 0·971 | .. | ... |
| 693 | ... ... .. | + 4·8989 | − 0·0712 | .. | − 12·264 | − 0·561 | ... | ... |
| 694 | S Capricorni Var. 2 .. | + 3·4136 | − 0·0128 | ... | − 12·477 | − 0·385 | . | ... |
| 695 | ... ... | + 2·7629 | + 0·0002 | ... | − 12·672 | − 0·307 | ... | .. |
| 696 | 50 Cygni α .. .. | + 2·0132 | + 0·0021 | − 0·002 | − 12·673 | − 0·226 | 0·00 | 7171 |
| 697 | S Delphini Var. 2 ... | + 2·7632 | + 0·0002 | ... | − 12·673 | − 0·307 | ... | ... |
| 698 | ... .. .. | + 4·4127 | − 0·0042 | ... | − 12·761 | − 0·495 | ... | .. |
| 699 | 2 Aquarii ε . | + 3·2523 | − 0·0084 | − 0·001 | − 12·908 | − 0·356 | + 0·01 | 7196 |
| 700 | 8571 Lacaille ... | + 4·8119 | − 0·0069 | ... | − 13·078 | − 0·529 | ... | ... |
| 701 | 9633 Taylor .. .. | + 3·2849 | − 0·0093 | ... | − 13·191 | − 0·355 | ... | 7232 |
| 702 | 6 Aquarii μ .. | + 3·2399 | − 0·0083 | 0·000 | − 13·241 | − 0·349 | + 0·04 | 7239 |
| 703 | ... ... ... | + 4·7306 | − 0·0744 | ... | − 13·393 | − 0·507 | ... | ... |
| 704 | 32 Vulpeculæ ... | + 2·5554 | + 0·0026 | − 0·002 | − 13·467 | − 0·270 | 0·00 | 7256 |
| 705 | ... ... . | + 4·3593 | − 0·0553 | ... | − 13·798 | − 0·455 | ... | ... |
| 706 | R Vulpeculæ Var. 2... | + 2·6624 | + 0·0022 | ... | − 14·080 | − 0·271 | ... | ... |
| 707 | ... .. | + 4·6483 | − 0·0757 | ... | − 14·088 | − 0·476 | ... | ... |
| 708 | 9772 Taylor (1st) | + 4·4263 | − 0·0624 | ... | − 14·205 | − 0·449 | ... | ... |
| 709 | 61 Cygni (1st) | + 2·3337 | + 0·0044 | + 0·339 | − 14·232 | − 0·233 | − 3·22 | 7336 |
| 710 | 13 Aquarii ν .. .. | + 3·2699 | − 0·0038 | + 0·001 | − 14·312 | − 0·328 | + 0·01 | 7344 |
| 711 | 64 Cygni ζ ... .. | + 2·5504 | + 0·0038 | − 0·003 | − 14·614 | − 0·248 | + 0·07 | 7368 |
| 712 | 8748 Lacaille .. | + 4·3701 | − 0·0634 | ... | − 14·770 | − 0·425 | ... | ... |
| 713 | 22 Aquarii β ... .. | + 3·1623 | − 0·0071 | − 0·001 | − 15·605 | − 0·282 | 0·00 | 7478 |
| 714 | ... . ... | + 4·0793 | − 0·0516 | ... | − 15·651 | − 0·363 | ... | ... |
| 715 | 23 Aquarii ξ .. ... | + 3·1930 | − 0·0043 | + 0·004 | − 15·934 | − 0·276 | + 0·04 | 7514 |
| 716 | 10032 Taylor .. | + 4·1474 | − 0·0584 | ... | − 15·944 | − 0·359 | ... | 7513 |
| 717 | 10065 Taylor .. | + 4·2103 | − 0·0649 | ... | − 16·142 | − 0·357 | ... | 7540 |
| 718 | 8 Pegasi ε ... . | + 2·9452 | − 0·0065 | + 0·003 | − 16·300 | − 0·242 | 0·00 | 7561 |
| 719 | μ Cephei Var. 1 .. | + 1·8323 | + 0·0039 | ... | − 16·394 | − 0·147 | ... | 7582 |
| 720 | 16 Pegasi ... .. | + 2·7254 | + 0·0052 | + 0·001 | − 16·764 | − 0·210 | + 0·01 | 7627 |
| 721 | 10190 Taylor .. .. | + 4·1513 | − 0·0695 | ... | − 16·963 | − 0·316 | ... | 7645 |
| 722 | .. ... .. | + 4·3254 | − 0·0872 | ... | − 17·089 | − 0·323 | ... | ... |
| 723 | .. ... .. | + 3·7752 | − 0·0430 | ... | − 17·287 | − 0·272 | ... | ... |
| 724 | 34 Aquarii α ... . | + 3·0536 | − 0·0041 | − 0·003 | − 17·314 | − 0·219 | + 0·02 | 7688 |
| 725 | ... ... .. | + 3·1979 | − 0·0092 | ... | − 17·598 | − 0·216 | ... | ... |

*Mean Positions of Stars for 1866 January 1st.*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 726 | ... ... .. | 7·9 | 1 | 22 | 9 | 2·21 | 98 | 22 | 21·4 | 1 | 0·78 |
| 727 | ... ... ... .. | 9·0 | 1 | 22 | 9 | 3·86 | 146 | 27 | 35·2 | 1 | 0·76 |
| 728 | 43 Aquarii θ ... .. | 4·5 | ... | 22 | 9 | 36·11 | 98 | 27 | 51·3 | 1 | 0·65 |
| 729 | 48 Aquarii γ ... .. | 3·7 | ... | 22 | 14 | 34·67 | 92 | 4 | 36·0 | 2 | 0·[illegible]2 |
| 730 | ... ... ... .. | 8·8 | 1 | 22 | 15 | 17·87 | 82 | 47 | 40·5 | 1 | 0·79 |
| 731 | ... ... .. ... | 9·6 | 1 | 22 | 18 | 46·99 | 140 | 46 | 3·8 | 1 | 0·76 |
| 732 | 150 R. P. L. ... ... | 5·3 | ... | 22 | 23 | 42·20 | 4 | 35 | 0·1 | 6 | 0·11 |
| 733 | 27 Cephei δ Var. 2 .. | 5·6 | 4 | 22 | 24 | 5·38 | 32 | 17 | 9·6 | 4 | 0·70 |
| 734 | ... ... ... ... | 9·8 | 1 | 22 | 24 | 36·10 | 146 | 50 | 51·5 | 1 | 0·76 |
| 735 | ... ... ... .. | 8·0 | 1 | 22 | 25 | 48·37 | 141 | 30 | 31·5 | 1 | 0·76 |
| 736 | 62 Aquarii η ... ... | 3·7 | ... | 22 | 28 | 18·89 | 90 | 49 | 22·6 | 9 | 0·76 |
| 737 | 10477 Taylor ... .. | 6·0 | 1 | 22 | 32 | 3·46 | 148 | 8 | 5·9 | 1 | 0·77 |
| 738 | 42 Pegasi ζ ... .. | 3·3 | ... | 22 | 34 | 37·67 | 79 | 52 | 59·1 | 4 | 0·79 |
| 739 | ... ... ... .. | 6·6 | 1 | 22 | 37 | 35·40 | 145 | 46 | 57·5 | 1 | 0·76 |
| 740 | XXII. 844 W. B. E. ... | 8·9 | 1 | 22 | 40 | 31·06 | 87 | 48 | 59·4 | 1 | 0·73 |
| 741 | ... ... ... ... | 9·1 | 2 | 22 | 40 | 48·46 | 142 | 38 | 20·6 | 2 | 0·82 |
| 742 | ... ... ... ... | 9·7 | 2 | 22 | 44 | 40·08 | 145 | 33 | 19·6 | 2 | 0·79 |
| 743 | ... ... ... ... | 7·9 | 2 | 22 | 44 | 46·65 | 148 | 34 | 51·0 | 2 | 0·81 |
| 744 | S Aquarii Var. 2 ... ... | 8·8 | 2 | 22 | 49 | 48·58 | 111 | 4 | 26·7 | 2 | 0·81 |
| 745 | 24 Pis. Aus. α (*Fomalhaut*) | 1·3 | ... | 22 | 50 | 4·39 | 120 | 20 | 51·7 | 8 | 0·81 |
| 746 | ... ... ... .. | 9·2 | 1 | 22 | 51 | 22·53 | 151 | 33 | 39·0 | 1 | 0·77 |
| 747 | ... ... ... ... | 9·3 | 1 | 22 | 51 | 47·53 | 85 | 26 | 50·2 | 1 | 0·78 |
| 748 | 9353 Lacaille .. ... | 6·0 | 1 | 22 | 56 | 32·24 | 144 | 41 | 54·1 | 1 | 0·69 |
| 749 | ... ... ... .. | 9·0 | 1 | 22 | 57 | 7·80 | 149 | 38 | 17·9 | 1 | 0·85 |
| 750 | 53 Pegasi β Var. 1 (*Scheat*) | 2·0 | ... | 22 | 57 | 8·24 | 62 | 39 | 36·2 | 1 | 0·76 |
| 751 | 54 Pegasi α (*Markab*) .. | 2·0 | ... | 22 | 57 | 56·24 | 75 | 31 | 54·2 | 4 | 0·81 |
| 752 | ... ... ... ... | 9·8 | 1 | 22 | 59 | 16·44 | 150 | 22 | 36·9 | 1 | 0·77 |
| 753 | 9377 Lacaille ... .. | 6·5 | 2 | 23 | 2 | 8·71 | 151 | 18 | 22·3 | 2 | 0·82 |
| 754 | 90 Aquarii φ .. .. | 4·7 | ... | 23 | 7 | 13·63 | 96 | 47 | 14·0 | 1 | 0·66 |
| 755 | 9405 Lacaille .. .. | 8·2 | 4 | 23 | 7 | 22·77 | 150 | 26 | 25·0 | 4 | 0·81 |
| 756 | 6 Piscium γ .. .. | 4·3 | ... | 23 | 10 | 3·75 | 87 | 27 | 57·7 | 8 | 0·82 |
| 757 | .. .. .. .. | 9·8 | 1 | 23 | 11 | 2·08 | 151 | 16 | 3·7 | 1 | 0·77 |
| 758 | .. .. ... .. | 8·6 | 1 | 23 | 11 | 15·10 | 136 | 54 | 41·3 | 1 | 0·87 |
| 759 | ... .. ... .. | 8·5 | 1 | 23 | 12 | 4·13 | 137 | 4 | 14·6 | 1 | 0·69 |
| 760 | 96 Aquarii ... .. | 5·5 | 1 | 23 | 12 | 17·65 | 95 | 52 | 21·1 | 1 | 0·66 |

732.—2820 Groombridge.
733.—δ Cephei Var. 2.—Period 5·366 days.—Range, 3·7 to 4·8 magnitude.
744.—S Aquarii Var. 2.—Period 279 days.—Range, 8th magnitude to invisibility.
750.—β Pegasi Var. 1.—Period about 6 weeks.—Range, 2·0 to 2·5 magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 726 | ... ... .. | + 3·1637 | − 0·0077 | | − 17·750 | − 0·207 | ... | ... |
| 727 | .. ... .. | + 4·0088 | − 0·0055 | ... | − 17·751 | − 0·264 | ... | ... |
| 728 | 43 Aquarii θ .. . | + 3·1641 | − 0·0075 | + 0·006 | − 17·773 | − 0·205 | + 0·03 | 7773 |
| 729 | 48 Aquarii γ .. | + 3·0935 | − 0·0042 | + 0·007 | − 17·971 | − 0·191 | − 0·02 | 7795 |
| 730 | .. .. . | + 2·9975 | 0·0000 | ... | − 17·998 | − 0·185 | ... | . |
| 731 | ... ... .. | + 3·7720 | − 0·0516 | .. | − 18·131 | − 0·227 | ... | .. |
| 732 | 150 R. P. L. .. ... | − 3·7312 | − 1·1665 | + 0·048 | − 18·310 | + 0·230 | − 0·05 | 7851 |
| 733 | 27 Cephei δ Var. 2 | + 2·2122 | + 0·0165 | + 0·002 | − 18·325 | − 0·123 | + 0·02 | 7848 |
| 734 | .. ... . | + 3·8907 | − 0·0676 | ... | − 18·343 | − 0·221 | .. | ... |
| 735 | ... ... .. | + 3·7439 | − 0·0527 | ... | − 18·385 | − 0·210 | ... | ... |
| 736 | 62 Aquarii η .. | + 3·0795 | − 0·0031 | + 0·003 | − 18·472 | − 0·166 | + 0·06 | 7868 |
| 737 | 10477 Taylor .. | + 3·8773 | − 0·0708 | ... | − 18·597 | − 0·203 | ... | 7889 |
| 738 | 42 Pegasi ζ ... .. | + 2·9851 | + 0·0023 | + 0·001 | − 18·680 | − 0·149 | 0·00 | 7908 |
| 739 | ... ... ... | + 3·7639 | − 0·0622 | ... | − 18·772 | − 0·185 | . | ... |
| 740 | XXII 844 W. B. E .. | + 3·0547 | − 0·0012 | ... | − 18·861 | − 0·143 | . | . |
| 741 | .. ... .. | + 3·6652 | − 0·0534 | ... | − 18·870 | − 0·162 | . | ... |
| 742 | . ... .. | + 3·7013 | − 0·0604 | .. | − 18·961 | − 0·166 | .. | ... |
| 743 | ... ... .. | + 3·7776 | − 0·0697 | ... | − 18·985 | − 0·169 | ... | ... |
| 744 | S Aquarii Var. 2 ... | + 3·2275 | − 0·0140 | ... | − 19·121 | − 0·134 | ... | ... |
| 745 | 24 Piscis Aust. α ... | + 3·3071 | − 0·0210 | + 0·022 | − 19·130 | − 0·135 | + 0·18 | 7992 |
| 746 | ... .. . | + 3·8003 | − 0·0796 | ... | − 19·162 | − 0·155 | .. | ... |
| 747 | ... ... .. | + 3·0409 | + 0·0005 | ... | − 19·174 | − 0·122 | ... | ... |
| 748 | 9353 Lacaille .. | + 3·5883 | − 0·0559 | ... | − 19·291 | − 0·135 | ... | 8029 |
| 749 | ... ... .. | + 3·6903 | − 0·0705 | ... | − 19·305 | − 0·138 | . | ... |
| 750 | 53 Pegasi β Var. 1 ... | + 2·8849 | + 0·0117 | + 0·014 | − 19·306 | − 0·106 | − 0·15 | 8032 |
| 751 | 54 Pegasi α ... ... | + 2·9797 | + 0·0056 | + 0·003 | − 19·324 | − 0·107 | + 0·02 | 8034 |
| 752 | ... ... ... | + 3·6878 | − 0·0728 | ... | − 19·355 | − 0·133 | ... | .. |
| 753 | 9377 Lacaille .. | + 3·6822 | − 0·0753 | ... | − 19·419 | − 0·126 | ... | 8061 |
| 754 | 90 Aquarii φ ... ... | + 3·1084 | − 0·0045 | + 0·001 | − 19·525 | − 0·096 | + 0·19 | 8085 |
| 755 | 9405 Lacaille ... | + 3·6086 | − 0·0703 | ... | − 19·529 | − 0·111 | ... | 8086 |
| 756 | 6 Piscium γ ... ... | + 3·0591 | + 0·0005 | + 0·047 | − 19·582 | − 0·087 | + 0·01 | 8105 |
| 757 | ... ... .. | + 3·5992 | − 0·0721 | .. | − 19·599 | − 0·103 | ... | ... |
| 758 | ... ... . | + 3·3738 | − 0·0382 | ... | − 19·603 | − 0·098 | . | ... |
| 759 | ... ... | + 3·3705 | − 0·0384 | ... | − 19·618 | − 0·094 | .. | ... |
| 760 | 69 Aquarii ... . | + 3·1005 | − 0·0038 | + 0·011 | − 19·622 | − 0·085 | + 0·01 | 8119 |

750—Proper Motions adopted from "*Greenwich Catalogue.*"

*Mean Positions of Stars for 1868 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 761 | 4040 Groombridge .. | 7·0 | 1 | 23 | 12 | 55·84 | 7 | 3 | 35·0 | 1 | 0·82 |
| 762 | 10748 Taylor ... .. | 5·9 | 3 | 23 | 17 | 29·43 | 147 | 30 | 3·1 | 3 | 0·83 |
| 763 | .. ... . .. | 9·9 | 1 | 23 | 19 | 38·74 | 151 | 38 | 24·2 | 1 | 0·77 |
| 764 | 8 Piscium κ ... ... | 5·0 | ... | 23 | 19 | 54·55 | 89 | 29 | 39·4 | 12 | 0·80 |
| 765 | ... ... ... ... | 9·3 | 2 | 23 | 20 | 59·84 | 137 | 28 | 4·5 | 2 | 0·76 |
| 766 | ... ... ... ... | 8·3 | 1 | 23 | 23 | 33·84 | 148 | 57 | 55·0 | 1 | 0·85 |
| 767 | 10804 Taylor ... ... | 6·4 | 3 | 23 | 27 | 26·43 | 147 | 34 | 53·7 | 3 | 0·81 |
| 768 | ... ... ... ... | 8·8 | 1 | 23 | 27 | 42·50 | 148 | 15 | 5·2 | 1 | 0·76 |
| 769 | 158 R. P. L. ... ... | 5·7 | ... | 23 | 27 | 49·86 | 3 | 26 | 54·5 | 11 | 0·46 |
| 770 | .. ... ... ... | 9·5 | 2 | 23 | 29 | 51·20 | 137 | 20 | 25·6 | 12 | 0·76 |
| 771 | ... .. ... ... | 8·4 | 1 | 23 | 30 | 21·40 | 148 | 57 | 0·4 | 1 | 0·85 |
| 772 | 17 Piscium ι ... ... | 4·3 | ... | 23 | 32 | 54·27 | 85 | 6 | 58·2 | 11 | 0·80 |
| 773 | ... ... ... ... | 9·2 | 1 | 23 | 34 | 17·16 | 147 | 27 | 44·8 | 1 | 0·84 |
| 774 | ... .. ... ... | 9·2 | 1 | 23 | 36 | 33·67 | 106 | 2 | 41·7 | 1 | 0·74 |
| 775 | δ Sculptoris ... ... | 4·5 | ... | 23 | 41 | 47·09 | 118 | 53 | 16·5 | 13 | 0·81 |
| 776 | ... ... ... ... | 8·6 | 2 | 23 | 42 | 0·27 | 150 | 50 | 15·8 | 2 | 0·83 |
| 777 | 9638 Lacaille ... ... | 7·8 | 2 | 23 | 46 | 58·37 | 150 | 18 | 19·5 | 2 | 0·81 |
| 778 | R Cassiopeæ Var. 3 ... | 9·5 | 1 | 23 | 51 | 27·44 | 39 | 22 | 30·2 | 1 | 0·74 |
| 779 | .. ... .. ... | 9·4 | 1 | 23 | 51 | 55·83 | 143 | 16 | 18·8 | 1 | 0·87 |
| 780 | 28 Piscium ω ... ... | 4·0 | .. | 23 | 52 | 16·60 | 83 | 53 | 43·1 | 5 | 0·80 |
| 781 | 10990 Taylor ... ... | 9·2 | 2 | 23 | 56 | 50·88 | 148 | 35 | 30·0 | 2 | 0·82 |
| 782 | 10994 Taylor ... ... | 8·0 | 1 | 23 | 57 | 44·29 | 147 | 36 | 20·6 | 1 | 0·77 |

769.—4101 Groombridge.
778.—R Cassiopeæ Var. 3.—Period 426 days.—Range, 5th magnitude to invisibility.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension | | | In Polar Distance | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 761 | 4040 Groombridge .. | + 2·1835 | + 0·0392 | . | − 19·634 | − 0·057 | ... | 8122 |
| 762 | 10748 Taylor .. | + 3·4605 | − 0·0582 | ... | − 19·711 | − 0·085 | ... | 8157 |
| 763 | ... ... .. | + 3·5059 | − 0·0703 | ... | − 19·745 | − 0·081 | ... | ... |
| 764 | 8 Piscium κ ... .. | + 3·0699 | 0·0000 | + 0·005 | − 19·750 | − 0·069 | + 0·12 | 8169 |
| 765 | .. | + 3·3189 | − 0·0375 | ... | − 19·765 | − 0·074 | ... | ... |
| 766 | . ... . | + 3·4238 | − 0·0605 | ... | − 19·802 | − 0·070 | .. | ... |
| 767 | 10804 Taylor | + 3·3701 | − 0·0555 | ... | − 19·853 | − 0·060 | ... | 8208 |
| 768 | ... . | + 3·3755 | − 0·0572 | . | − 19·856 | − 0·060 | ... | ... |
| 769 | 158 R. P. L. ... .. | − 0·0318 | − 0·4961 | + 0·084 | − 19·858 | + 0·010 | − 0·01 | 8213 |
| 770 | .. | + 3·2624 | − 0·0360 | ... | − 19·882 | − 0·053 | ... | ... |
| 771 | ... .. | + 3·3585 | − 0·0583 | | − 19·887 | − 0·054 | ... | ... |
| 772 | 17 Piscium ι ... .. | + 3·0584 | + 0·0030 | + 0·025 | − 19·916 | − 0·042 | + 0·45 | 8233 |
| 773 | . .. | + 3·3067 | − 0·0532 | | − 19·929 | − 0·044 | .. | ... |
| 774 | ... ... ... | + 3·1110 | − 0·0081 | ... | − 19·953 | − 0·037 | ... | ... |
| 775 | δ Sculptoris . .. | + 3·1305 | − 0·0161 | + 0·009 | − 19·992 | − 0·026 | + 0·10 | 8275 |
| 776 | .. | + 3·2600 | − 0·0589 | .. | − 19·993 | − 0·028 | ... | ... |
| 777 | 9638 Lacaille .. | + 3·2052 | − 0·0557 | ... | − 20·023 | − 0·017 | ... | ... |
| 778 | R Cassiopeæ Var 3 ... | + 3·0114 | + 0·0364 | ... | − 20·041 | − 0·007 | ... | ... |
| 779 | ... | + 3·1352 | − 0·0402 | ... | − 20·042 | − 0·007 | ... | ... |
| 780 | 28 Piscium ω | + 3·0671 | + 0·0047 | + 0·010 | − 20·044 | − 0·005 | + 0·13 | 8331 |
| 781 | 10990 Taylor .. | + 3·1022 | − 0·0482 | ... | − 20·053 | + 0·003 | ... | ... |
| 782 | 10994 Taylor . | + 3·0930 | − 0·0495 | .. | − 20·054 | + 0·005 | .. | ... |

775.—Proper motions adopted from "*Stone's Catalogue.*"

# SEPARATE RESULTS

OF

# OBSERVATIONS

MADE WITH THE

# MADRAS MERIDIAN CIRCLE

IN THE YEAR

# 1864.

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 1 | 11010 Taylor... ... | Nov. | 10 | M | 0 | 0 | 28·60 | 5 | 147 | 35 | 39·1 | 7·9 |
| 2 | .. ... ... | Nov. | 8 | M | 0 | 0 | 42·06 | ... | 151 | 23 | 53·2 | 9·1 |
| 3 | 21 Andromedæ α ... | Oct. | 20 | R | 0 | 1 | 21·80 | ... | 61 | 39 | 40·3 | ... |
| | ... ... ... | „ | 22 | R | | 1 | 21·62 | .. | | 39 | 39·9 | .. |
| | ... ... ... | „ | 24 | R | | 1 | 21·69 | ... | | 39 | 40·7 | . |
| | ... ... ... | „ | 25 | R | | 1 | 21·47 | ... | | 39 | 38·8 | ... |
| | ... ... ... | „ | 26 | R | | 1 | 21·72 | .. | | 39 | 39·7 | .. |
| | ... ... ... | „ | 28 | R | | 1 | 21·67 | .. | | 39 | 38·9 | .. |
| | ... ... ... | Nov. | 7 | M | | 1 | 21·73 | .. | | 39 | 39·8 | .. |
| | ... ... ... | Dec. | 1 | M | | 1 | 21·72 | ... | | 39 | 40·4 | ... |
| | ... ... ... | „ | 2 | M | | 1 | 21·72 | .. | | 39 | 41·1 | ... |
| 4 | 9739 Lacaile... ... | Sep. | 28 | R | 0 | 2 | 3·98 | ... | 130 | 29 | 34·8 | 7·5 |
| | ... .. ... | Oct. | 5 | M | | 2 | 4·07 | ... | | 29 | 37·8 | 7·7 |
| 5 | 7 Taylor .. ... | Sep. | 15 | M | 0 | 2 | 57·47 | ... | 93 | 19 | 4·6 | 7·1 |
| 6 | 3 Lacaille ... ... | Nov. | 3 | M | 0 | 6 | 6·66 | ... | 148 | 40 | 15·3 | 6·6 |
| 7 | 88 Pegasi γ ... ... | Oct. | 11 | M | 0 | 6 | 14·00 | ... | 75 | 34 | 23·8 | .. |
| | ... ... ... | „ | 15 | M | | 6 | 14·06 | ... | | 34 | 24·2 | ... |
| | ... ... ... | „ | 20 | R | | 6 | 14·07 | ... | | 34 | 23·1 | ... |
| | .. ... ... | „ | 22 | R | | 6 | 14·22 | 5 | | 34 | 23·0 | .. |
| | ... . ... | „ | 24 | R | | 6 | 14·12 | .. | | 34 | 24·0 | ... |
| | ... ... ... | „ | 25 | R | | 6 | 14·17 | ... | | 34 | 23·8 | ... |
| | ... ... ... | „ | 26 | R | | 6 | 13·98 | ... | | 34 | 23·1 | ... |
| | ... ... ... | „ | 28 | R | | 6 | 14·08 | ... | | 34 | 22·7 | ... |
| | ... ... ... | Dec. | 2 | M | | 6 | 14·03 | . | | 34 | 24·0 | .. |
| 8 | ... ... ... | Sep. | 27 | R | 0 | 6 | 30·31 | 5 | 131 | 7 | 0·9 | 9·2 |
| | .. ... ... | Oct. | 7 | M | | 6 | 30·58 | .. | | 7 | 1·4 | 9·7 |
| 9 | .. . .. | Nov. | 5 | M | 0 | 9 | 22·56 | 5 | 149 | 31 | 50·5 | 8·7 |
| 10 | ... .. .. | Nov. | 8 | M | 0 | 9 | 33·24 | ... | 153 | 55 | 6·7 | 9·0 |
| | ... ... ... | „ | 11 | M | | 9 | 33·23 | 3 | | 55 | 7·5 | 9·0 |

## *Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires | Mean Polar Distance 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 11 | 41 Lacaille . | Sep. | 28 | R | 0 | 12 | 33·47 | ... | 130 | 52 | 4·2 | 8·0 |
| | ... ... | Oct. | 28 | R | | 12 | 33·60 | ... | | 52 | 1·8 | 8·2 |
| 12 | . .. | Sep. | 27 | R | 0 | 12 | 47·24 | ... | 150 | 26 | 39·0 | 8·7 |
| | . . .. | Nov. | 2 | M | | 12 | 47·13 | 3 | | 26 | 38·3 | 8·6 |
| | .. .. | „ | 12 | M | | 12 | 47·51 | ... | | 26 | 39·0 | 8·9 |
| 13 | 41 Piscium d... .. | Sep. | 15 | M | 0 | 13 | 36·04 | ... | 82 | 33 | 54·6 | 5·6 |
| | .. ... | „ | 16 | R | | 13 | 36·02 | .. | | 33 | 55·3 | 5·6 |
| 14 | . ... .. | Nov. | 8 | M | 0 | 18 | 31·22 | .. | 152 | 57 | 38·5 | 9·0 |
| 15 | 81 Lacaille ... ... | Sep. | 29 | R | 0 | 18 | 38·22 | ... | 180 | 0 | 39·9 | 7·2 |
| 16 | 12 Ceti ... ... | Oct. | 24 | R | 0 | 23 | 5·83 | ... | 94 | 42 | 34·7 | ... |
| | ... ... .. | „ | 27 | R | | 23 | 5·91 | ... | | 42 | 34·1 | . |
| | . ... ... | Nov. | 5 | M | | 23 | 5·79 | ... | | 42 | 34·8 | ... |
| | ... ... ... | „ | 7 | M | | 23 | 5·86 | ... | | 42 | 34·0 | .. |
| | .. ... ... | „ | 11 | M | | 23 | 5·87 | ... | | 42 | 35·0 | .. |
| | ... . ... | „ | 12 | M | | 23 | 5·90 | ... | | 42 | 35·8 | ... |
| | ... . ... | Dec. | 2 | M | | 23 | 5·88 | ... | | 42 | 35·4 | .. |
| | .. .. ... | „ | 3 | M | | 23 | 5·86 | ... | | 42 | 34·8 | .. |
| | ... ... ... | „ | 5 | M | | 23 | 5·83 | ... | | 42 | 33·9 | ... |
| 17 | T Piscium Var. 3 ... | Oct. | 28 | R | 0 | 24 | 57·60 | 3 | 76 | 9 | 0·4 | 10·5 |
| 18 | .. .. ... | Aug. | 19 | R | 0 | 27 | 7·96 | ... | 76 | 14 | 7·7 | 8·0 |
| | ... ... .. | Sep. | 27 | R | | 27 | 7·88 | ... | | 14 | 7·9 | 8·5 |
| | .. .. ... | Oct. | 15 | M | | 27 | 7·74 | ... | | 14 | 8·7 | 8·0 |
| 19 | 132 Lacaille ... | Nov. | 8 | M | 0 | 27 | 19·38 | 6 | 151 | 53 | 55·9 | 9·0 |
| 20 | 970 Lalande ... ... | Dec. | 6 | M | 0 | 31 | 4·54 | 5 | 80 | 55 | 9·4 | 7·7 |
| 21 | 1010 Lalande ... | Oct. | 24 | R | 0 | 32 | 15·52 | ... | 82 | 32 | 27·6 | 9·5 |
| | ... ... ... | Nov. | 2 | M | | 32 | 15·49 | ... | | 32 | 27·2 | 9·1 |
| 22 | 18 Cassiopeæ α Var. 2. | Dec | 3 | M | 0 | 32 | 48·14 | ... | 34 | 12 | 34·7 | .. |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 23 | 16 Ceti β ... ... | Oct. | 22 | R | 0 | 36 | 45·69 | ... | 108 | 44 | 1·3 | ... |
| | ... ... ... | „ | 24 | R | | 36 | 45·64 | ... | | 44 | 2·0 | ... |
| | ... ... ... | Nov. | 3 | M | | 36 | 45·64 | ... | | 44 | 0·7 | ... |
| | ... ... ... | „ | 7 | M | | 36 | 45·77 | ... | | 44 | 0·0 | ... |
| | ... ... ... | „ | 11 | M | | 36 | 45·59 | ... | | 44 | 1·2 | ... |
| | ... ... ... | Dec. | 2 | M | | 36 | 45·64 | ... | | 44 | 2·3 | ... |
| | ... ... ... | „ | 3 | M | | 36 | 45·61 | ... | | 44 | 1·7 | ... |
| | ... ... ... | „ | 5 | M | | 36 | 45·69 | ... | | 44 | 1·1 | ... |
| | ... ... ... | „ | 6 | M | | 36 | 45·68 | ... | | 44 | 1·5 | ... |
| | ... ... ... | „ | 7 | M | | 36 | 45·59 | ... | | 44 | 1·2 | ... |
| | ... ... ... | „ | 8 | M | | 36 | 45·62 | ... | | 44 | 2·0 | ... |
| 24 | 0·628 W. B. E. ... | Nov. | 5 | M | 0 | 36 | 54·12 | 4 | 93 | 49 | 29·0 | ... |
| 25 | ... ... ... | Nov. | 8 | M | 0 | 39 | 53·91 | 5 | 150 | 44 | 54·3 | 8·9 |
| | ... ... ... | „ | 12 | M | | 39 | 54·09 | ... | | 44 | 55·0 | 9·1 |
| 26 | 58 Piscium ... ... | Oct. | 13 | M | 0 | 39 | 55·34 | ... | 78 | 46 | 8·8 | 5·0 |
| 27 | 63 Piscium δ ... ... | Aug. | 19 | R | 0 | 41 | 37·53 | 4 | 83 | 9 | 21·1 | ... |
| | ... ... ... | Oct. | 13 | M | | 41 | 37·56 | 3 | | 9 | 22·4 | ... |
| | ... ... ... | „ | 14 | M | | 41 | 37·62 | ... | | 9 | 21·1 | ... |
| 28 | 253 Lacaille ... ... | Nov. | 8 | M | 0 | 47 | 57·75 | 3 | 153 | 36 | 39·3 | 6·0 |
| 29 | ... ... ... | Dec. | 9 | M | 0 | 48 | 55·25 | 5 | 153 | 49 | 48·6 | 9·6 |
| 30 | 2 Ursæ Minoris s.p. | May | 12 | M | 0 | 50 | 44·24 | 2 | 4 | 98 | 28·9 | ... |
| | ... ... ... | Nov. | 2 | M | | 50 | 44·40 | 3 | | 28 | 29·9 | ... |
| 31 | 0·897 W. B. E. ... | Nov. | 7 | M | 0 | 52 | 12·41 | ... | 92 | 49 | 54·4 | 9·3 |
| | ... .. ... | Dec. | 5 | M | | 52 | 12·35 | 6 | | 49 | 54·9 | 9·0 |
| | ... ... ... | „ | 6 | M | | 52 | 12·25 | 3 | | 49 | 56·1 | 9·2 |
| 32 | 271 Lacaille ... ... | Nov. | 12 | M | 0 | 52 | 42·54 | ... | 151 | 25 | 55·2 | 7·5 |
| 33 | 14 R. P. L. ... s.p. | May | 21 | M | 0 | 53 | 58·26 | 2 | 3 | 34 | 53·8 | ... |
| 34 | 70 Piscium ... ... | Dec. | 1 | M | 0 | 55 | 2·48 | ... | 82 | 47 | 38·2 | 6·9 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ' | " | |
| 35 | 71 Piscium ε... | Jan. | 1 | M | 0 | 55 | 53·10 | ... | 82 | 50 | 35·7 | .. |
| | ... ... ... | ,, | 2 | M | | 55 | 53·16 | .. | | 50 | 34·5 | ... |
| | ... ... .. | ,, | 4 | M | | 55 | 53·23 | ... | | 50 | 35·5 | ... |
| | ... .. ... | Sep. | 16 | R | | 55 | 53·34 | ... | | 50 | 35·1 | ... |
| | ... ... ... | Nov. | 10 | M | | 55 | 53·09 | ... | | 50 | 35·5 | ... |
| | ... ... .. | ,, | 11 | M | | 55 | 53·24 | ... | | 50 | 35·6 | ... |
| | ... ... .. | ,, | 29 | R | | 55 | 53·20 | ... | | 50 | 35·8 | ... |
| | .. ... ... | Dec. | 8 | M | | 55 | 53·33 | 2 | | 50 | 34·7 | ... |
| 36 | 29 Ceti .. .. | Nov. | 5 | M | 1 | 0 | 58·99 | ... | 88 | 43 | 8·5 | 6·7 |
| 37 | 33 Ceti ... ... | Jan. | 1 | M | 1 | 3 | 33·49 | .. | 88 | 16 | 45·8 | .. |
| | .. ... ... | ,, | 2 | M | | 3 | 33·63 | .. | | 16 | 46·5 | .. |
| | ... ... ... | ,, | 4 | M | | 3 | 33·55 | ... | | 16 | 45·9 | ... |
| 38 | 86 Piscium ζ... ... | Sep. | 16 | R | 1 | 6 | 37·49 | ... | 83 | 8 | 35·6 | ... |
| | .. ... .. | Nov. | 11 | M | | 6 | 37·67 | ... | | 8 | 41·9 | .. |
| 39 | 1 Urs. Min. α .. s.p. | Apl. | 2 | M | 1 | 9 | 18·81 | 2 | 2 | 24 | 55·5 | ... |
| | ... ... s.p. | ,, | 6 | M | | 9 | 17·85 | 3 | | 24 | 56·0 | . |
| | ... ... s.p. | ,, | 16 | R | | 9 | 18·06 | 3 | | 24 | 56·3 | .. |
| | ... ... s.p. | ,, | 26 | R | | 9 | 19·09 | 3 | | 24 | 57·4 | .. |
| | ... ... s.p. | May | 5 | R | | 9 | 18·18 | 3 | | 24 | 56·4 | ... |
| | ... .. s.p. | ,, | 28 | R | | 9 | 18·54 | 3 | | 24 | 57·5 | .. |
| | ... .. ... | Oct. | 27 | R | | 9 | 17·96 | 3 | | 24 | 56·9 | ... |
| | ... ... ... | Nov. | 22 | R | | 9 | 17·88 | 3 | | 24 | 57·0 | .. |
| 40 | ... .. .. | Oct. | 27 | R | 1 | 17 | 0·20 | 3 | 96 | 31 | 27·6 | 8·0 |
| | .. .. | Dec. | 3 | M | | 17 | 0·17 | ... | | 31 | 24·9 | 8·2 |
| 41 | 45 Ceti θ¹ . ... | Jan. | 1 | M | 1 | 17 | 13·48 | . | 98 | 53 | 11·2 | .. |
| | ... .. .. | ,, | 2 | M | | 17 | 13·53 | ... | | 53 | 11·1 | ... |
| | ... ... ... | ,, | 4 | M | | 17 | 13·48 | ... | | 53 | 11·1 | ... |
| | ... .. .. | Nov. | 12 | M | | 17 | 13·55 | .. | | 53 | 11·6 | ... |
| | ... .. .. | ,, | 29 | R | | 17 | 13·57 | ... | | 53 | 12·3 | ... |
| | .. .. ... | Dec. | 6 | M | | 17 | 13·43 | ... | | 53 | 12·1 | ... |
| 42 | ... ... .. | Dec. | 5 | M | 1 | 18 | 53·11 | . | 151 | 20 | 23·0 | 7·6 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension. 1864 | | | No. of Wires. | Mean Polar Distance 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | | ° | ′ | ″ | |
| 43 | ... ... ... | Nov. 2 | M | 1 | 23 | 28·19 | .. | 87 | 43 | 58·8 | 8·2 |
| 44 | 99 Piscium η ... | Jan. 1 | M | 1 | 24 | 12·69 | ... | 75 | 21 | 24·9 | ... |
| | ... .. ... | " 2 | M | | 24 | 12·59 | ... | | 21 | 24·6 | ... |
| | .. ... ... | " 4 | M | | 24 | 12·53 | ... | | 21 | 24·6 | .. |
| | ... .. ... | Oct. 14 | M | | 24 | 12·66 | ... | | 21 | 24·8 | ... |
| | ... ... ... | " 15 | M | | 24 | 12·47 | ... | | 21 | 25·2 | ... |
| | ... .. ... | Nov. 22 | R | | 24 | 12·55 | ... | | 21 | 24·8 | ... |
| | ... ... ... | " 29 | R | | 24 | 12·55 | ... | | 21 | 25·0 | ... |
| | .. ... ... | Dec. 1 | M | | 24 | 12·57 | ... | | 21 | 24·3 | .. |
| | ... ... ... | " 8 | M | | 24 | 12·41 | ... | | 21 | 25·5 | . |
| | .. . ... | " 9 | M | | 24 | 12·49 | ... | | 21 | 25·4 | ... |
| 45 | ... .. ... | Nov. 12 | M | 1 | 26 | 44·66 | ... | 150 | 21 | 41·4 | 8·6 |
| 46 | 514 Taylor .. .. | Dec. 2 | M | 1 | 28 | 33·66 | .. | 73 | 15 | 51·2 | 6·0 |
| | ... ... ... | " 3 | M | | 28 | 33·51 | ... | | 15 | 51·3 | 6·1 |
| 47 | .. ... ... | Dec. 5 | M | 1 | 29 | 1·31 | ... | 150 | 42 | 35·1 | 9·0 |
| 48 | ... .. ... | Nov. 23 | R | 1 | 31 | 23·00 | .. | 130 | 52 | 19·2 | 8·0 |
| 49 | α Eridani (*Achernar*). | Nov. 22 | R | 1 | 32 | 38·91 | .. | 147 | 55 | 45·7 | ... |
| | .. .. ... | " 29 | R | | 32 | 38·98 | ... | | 55 | 45·2 | ... |
| | ... .. ... | Dec 20 | R | | 32 | 38·91 | ... | | 55 | 45·8 | ... |
| 50 | 106 Piscium ν . | Oct. 17 | R | 1 | 34 | 21·35 | ... | 85 | 12 | 7·7 | ... |
| | .. ... ... | Nov. 7 | M | | 34 | 21·16 | ... | | 12 | 7·4 | . |
| | ... ... ... | " 24 | R | | 34 | 21·32 | ... | | 12 | 7·0 | ... |
| | . ... .. | Dec. 1 | M | | 34 | 21·29 | ... | | 12 | 8·1 | ... |
| | ... ... ... | " 3 | M | | 34 | 21·29 | ... | | 12 | 7·6 | .. |
| | .. ... .. | " 6 | M | | 34 | 21·30 | ... | | 12 | 7·9 | ... |
| 51 | 503 Lacaille .. | Nov. 5 | M | 1 | 35 | 42·08 | ... | 151 | 41 | 18·8 | 7·7 |
| 52 | 110 Piscium ο ... | Oct. 14 | M | 1 | 38 | 12·88 | 5 | 81 | 31 | 42·7 | ... |
| | .. .. ... | " 15 | M | | 38 | 12·70 | .. | | 31 | 42·9 | .. |
| | .. .. . | Dec. 8 | M | | 38 | 12·74 | ... | | 31 | 42·7 | ... |
| | . ... | " 9 | M | | 38 | 12·79 | ... | | 31 | 42·4 | ... |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires | Mean Polar Distance 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 53 | ... ... | Dec. | 10 | M | 1 | 38 | 33·55 | 5 | 152 | 2 | 52·8 | 9·1 |
| 54 | 516 Lacaille ... ... | Nov. | 11 | M | 1 | 39 | 58·43 | ... | 151 | 42 | 9·3 | 7·0 |
| | ... ... ... | „ | 23 | R | | 39 | 58·35 | ... | | 42 | 9·0 | 7·0 |
| 55 | ... ... ... | Nov. | 7 | M | 1 | 46 | 9·24 | ... | 148 | 57 | 57·1 | 9·4 |
| 56 | V Piscium Var 5 ... | Nov. | 29 | R | 1 | 47 | 7·59 | 3 | 81 | 53 | 9·4 | 10·0 |
| 57 | 6 Arietis β . .. | Oct. | 17 | R | 1 | 47 | 7·86 | ... | 69 | 51 | 31·8 | ... |
| | ... ... ... | Nov. | 14 | M | | 47 | 7·90 | ... | | 51 | 31·8 | ... |
| | ... . ... | „ | 22 | R | | 47 | 7·93 | ... | | 51 | 32·0 | ... |
| | ... ... | „ | 24 | R | | 47 | 7·85 | ... | | 51 | 31·5 | ... |
| | ... ... | „ | 25 | R | | 47 | 7·92 | ... | | 51 | 31·2 | ... |
| | . ... .. | Dec. | 1 | M | | 47 | 7·87 | ... | | 51 | 32·2 | ... |
| | .. .. ... | „ | 3 | M | | 47 | 7·95 | ... | | 51 | 31·5 | ... |
| 58 | .. .. ... | Nov. | 5 | M | 1 | 48 | 32·60 | ... | 150 | 5 | 13·2 | 9·3 |
| | .. ... | Dec. | 5 | M | | 48 | 33·01 | 5 | | 5 | 13·7 | 9·3 |
| 59 | 582 Lacaille ... ... | Dec. | 10 | M | 1 | 50 | 54·77 | ... | 145 | 44 | 21·5 | 8·1 |
| 60 | 593 Lacaille .: ... | Jan. | 4 | M | 1 | 52 | 2·53 | 5 | 149 | 8 | 13·6 | ... |
| 61 | ... .. | Oct. | 22 | R | 1 | 54 | 52·42 | ... | 130 | 55 | 42·3 | 9·0 |
| | .. .. .. | Nov. | 24 | R | | 54 | 52·62 | ... | | 55 | 41·3 | 9·0 |
| 62 | 673 Taylor . ... | Nov. | 12 | M | 1 | 56 | 15·31 | ... | 72 | 24 | 8·3 | 6·0 |
| 63 | ... . | Nov. | 5 | M | 1 | 59 | 23·41 | ... | 150 | 2 | 30·2 | 9·3 |
| | .. .. . | Dec. | 5 | M | | 59 | 23·62 | .. | | 2 | 32·7 | 9·3 |
| 64 | 13 Arietis α .. ... | Oct. | 17 | R | 1 | 59 | 30·68 | .. | 67 | 10 | 58·6 | ... |
| | ... | Nov. | 14 | M | | 59 | 30·64 | ... | | 10 | 58·5 | .. |
| | .. ... | „ | 22 | R | | 59 | 30·70 | ... | | 10 | 58·3 | ... |
| | . ... ... | „ | 23 | R | | 59 | 30·63 | ... | | 10 | 58·5 | ... |
| | . ... ... | „ | 24 | R | | 59 | 30·65 | ... | | 10 | 57·7 | ... |
| | ... ... ... | Dec. | 6 | M | | 59 | 30·72 | .. | | 10 | 58·0 | ... |
| | . .. .. | „ | 10 | M | | 59 | 30·67 | ... | | 10 | 58·1 | ... |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 65 | 697 Taylor ... ... | Jan. | 4 | M | 2 | 1 | 45·88 | .. | 145 | 43 | 57·4 | 6·7 |
| 66 | ... ... ... | Oct. | 22 | R | 2 | 1 | 54·99 | ... | 130 | 2 | 27·4 | 9·3 |
| | ... ... ... | ,, | 26 | R | | 1 | 55·02 | ... | | 2 | 29·2 | 9·3 |
| 67 | 677 Lacaille ... ... | Oct. | 24 | R | 2 | 6 | 55·77 | ... | 149 | 47 | 35·4 | 8·0 |
| 68 | ... ... ... | Oct. | 26 | R | 2 | 6 | 58·76 | ... | 148 | 39 | 29·4 | 9·7 |
| 69 | 754 Taylor ... ... | Jan. | 4 | M | 2 | 9 | 11·61 | ... | 147 | 58 | 52·3 | 8·8 |
| | ... ... ... | Nov. | 29 | R | | 9 | 11·89 | 5 | | 58 | 55·1 | 9·0 |
| 70 | 67 Ceti ... ... | Nov. | 11 | M | 2 | 10 | 12·07 | ... | 97 | 3 | 3·2 | ... |
| | ... ... .. | ,, | 23 | R | | 10 | 12·05 | ... | | 3 | 3·3 | — |
| | ... ... ... | ,, | 24 | R | | 10 | 12·12 | ... | | 3 | 2·5 | .. |
| | ... ... ... | ,, | 25 | R | | 10 | 12·00 | .. | | 3 | 1·4 | |
| | ... .. ... | Dec. | 5 | M | | 10 | 12·03 | ... | | 3 | 3·4 | |
| | ... ... ... | ,, | 9 | M | | 10 | 12·04 | .. | | 3 | 3·5 | |
| | ... ... ... | ,, | 20 | R | | 10 | 12·07 | ... | | 3 | 2·2 | ... |
| 71 | 68 Ceti *o* Var. 1 (*Mira*). | Jan. | 6 | M | 2 | 12 | 28·65 | ... | 93 | 35 | 54·9 | 6·5 |
| | ... ... ... | Oct. | 22 | R | | 12 | 28·67 | ... | | 35 | 51·5 | 8·2 |
| | ... ... ... | ,, | 24 | R | | 12 | 28·71 | ... | | 35 | 50·2 | 8·0 |
| 72 | ... . ... | Dec. | 6 | M | 2 | 16 | 23·72 | .. | 151 | 18 | 24·7 | 8·0 |
| 73 | 818 Taylor ... ... | Jan. | 4 | M | 2 | 19 | 8·13 | ... | 147 | 25 | 59·7 | 7·5 |
| 74 | .. ... ... | Jan. | 7 | M | 2 | 20 | 10·55 | 4 | 146 | 32 | 42·3 | .. |
| | .. ... ... | Nov. | 29 | R | | 20 | 10·81 | ... | | 32 | 44·0 | |
| 75 | 73 Ceti ξ² .. ... | Jan. | 5 | M | 2 | 20 | 55·85 | ... | 82 | 9 | 5·3 | ... |
| | ... .. .. | ,, | 6 | M | | 20 | 55·79 | | | 9 | 4·9 | |
| | . ... ... | Nov. | 14 | M | | 20 | 55·91 | | | 9 | 6·3 | |
| | ... ... ... | ,, | 22 | R | | 20 | 55·80 | 4 | | 9 | 6·0 | |
| | . .. .. | ,, | 25 | R | | 20 | 55·83 | .. | | 9 | 5·2 | ... |
| | .. .. ... | Dec. | 9 | M | | 20 | 55·80 | | | 9 | 5·6 | |
| | ... ... .. | ,, | 10 | M | | 20 | 55·89 | | | 9 | 5·0 | |
| | ... ... .. | ,, | 17 | R | | 20 | 55·77 | | | 9 | 5·7 | |
| | ... ... ... | ,, | 20 | R | | 20 | 55·81 | .. | | 9 | 4·1 | |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number | Star. | Date of Observation | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | | ° | ′ | ″ | |
| 76 | λ Horologii .. | Dec. 5 | M | 2 | 21 | 6·12 | ... | 150 | 55 | 20·6 | 6·0 |
| 77 | . .. | Dec. 13 | M | 2 | 24 | 27·04 | .. | 147 | 2 | 45·3 | 8·2 |
| 78 | 783 Lacaille ... | Jan 11 | M | 2 | 26 | 12·97 | ... | 148 | 24 | 54·3 | 7·8 |
| | . | Nov 11 | M | | 26 | 13·41 | 5 | | 24 | 55·7 | 7·0 |
| 79 | .. . | Nov. 29 | R | 2 | 29 | 10·04 | 5 | 147 | 37 | 29·6 | 9·5 |
| 80 | 31 Arietis .. ... | Dec. 9 | M | 2 | 29 | 12·91 | .. | 78 | 8 | 40·2 | |
| | . .. ... | „ 10 | M | | 29 | 12·97 | 5 | | 8 | 39·8 | 5·5 |
| 81 | ... ... | Jan. 4 | M | 2 | 30 | 45·22 | .. | 147 | 34 | 54·3 | 9·8 |
| | .. ... | Nov 24 | R | | 30 | 45·57 | .. | | 34 | 54·6 | 9·7 |
| 82 | .. .. ... | Dec. 5 | M | 2 | 31 | 15·88 | 6 | 151 | 39 | 24·0 | 9·6 |
| 83 | 11 556 W. B. N . | Nov 23 | R | 2 | 33 | 10·17 | ... | 74 | 53 | 59·9 | 8·5 |
| | .. .. | „ 29 | R | | 33 | 10·25 | 5 | | 54 | 0·0 | 9·0 |
| 84 | ... . . | Nov. 10 | M | 2 | 33 | 59·16 | ... | 74 | 56 | 35·3 | 8·7 |
| 85 | 849 Lacaille (1st) .. | Jan. 5 | M | 2 | 36 | 0·55 | .. | 150 | 9 | 10·0 | 7·9 |
| 86 | 86 Ceti γ | Jan 7 | M | 2 | 36 | 15·50 | . | 87 | 20 | 22·1 | .. |
| | .. | „ 11 | M | | 36 | 15·49 | . | | 20 | 22·6 | . |
| | ... . | Nov. 8 | M | | 36 | 15·30 | | | 20 | 22·1 | |
| | . .. | „ 14 | M | | 36 | 15·33 | . | | 20 | 22·6 | . |
| | . ... | „ 25 | R | | 36 | 15·31 | | | 20 | 22·3 | |
| | .. . | Dec. 12 | M | | 36 | 15·22 | .. | | 20 | 22·7 | . |
| | . .. .. | „ 13 | M | | 36 | 15·31 | .. | | 20 | 22·9 | .. |
| | . . . | „ 17 | R | | 36 | 15·36 | .. | | 20 | 23·6 | .. |
| 87 | 38 Arietis . | Oct 15 | M | 2 | 37 | 33·03 | | 78 | 7 | 44·1 | 5·1 |
| | .. ... | Dec. 9 | M | | 37 | 32·99 | | | 7 | 44·6 | .. |
| | | „ 10 | M | | 37 | 33·17 | ... | | 7 | 43·3 | 5·0 |
| 88 | 11 676 W. B. N . | Nov. 4 | M | 2 | 40 | 8·21 | .. | 75 | 20 | 24·7 | 7·9 |
| | ... ... .. | „ 23 | R | | 40 | 8·17 | 5 | | 20 | 24·9 | 8·0 |
| | . | Dec 23 | R | | 40 | 8·03 | | | 20 | 23·8 | 8·3 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | | ° | ′ | ″ | |
| 89 | 42 Arietis π ... ... | Jan. 6 | M | 2 | 41 | 42·75 | ... | 73 | 6 | 14·3 | 5·2 |
| | ... .. ... | Oct. 15 | M | | 41 | 42·41 | 4 | | 6 | 17·1 | 5·6 |
| 90 | .. ... | Jan. 4 | M | 2 | 43 | 17·76 | 4 | 148 | 0 | 37·3 | 8·7 |
| | .. .. ... | ,, 15 | M | | 43 | 18·04 | 5 | | 0 | 37·0 | 8·9 |
| 91 | II 733 W. B. E. ... | Nov. 23 | R | 2 | 43 | 19·18 | 5 | 76 | 2 | 13·3 | 9·5 |
| | ... ... | ,, 24 | R | | 43 | 19·12 | ... | | 2 | 12·7 | 9·5 |
| 92 | .. ... ... | Jan. 12 | M | 2 | 45 | 15·73 | 3 | 76 | 27 | 53·8 | 9·2 |
| 93 | 969 Taylor .. ... | Nov. 10 | M | 2 | 45 | 37·51 | ... | 74 | 4 | 28·1 | 7·4 |
| | ... ... ... | Dec. 2 | M | | 45 | 37·46 | ... | | 4 | 28·4 | 7·5 |
| 94 | 87 Rumker .. ... | Dec. 5 | M | 2 | 46 | 0·94 | 5 | 153 | 22 | 19·5 | 5·9 |
| 95 | 5380 Lalande ... | Nov. 23 | R | 2 | 47 | 42·04 | ... | 74 | 14 | 41·8 | 8·0 |
| | ... ... ... | ,, 24 | R | | 47 | 42·00 | ... | | 14 | 41·0 | 8·2 |
| 96 | 941 Lacaille ... ... | Jan. 7 | M | 2 | 50 | 26·42 | 5 | 146 | 26 | 7·4 | 6·3 |
| | ... ... ... | ,, 11 | M | | 50 | 26·47 | 5 | | 26 | 6·0 | 6·7 |
| 97 | ... ... ... | Jan. 5 | M | 2 | 52 | 21·64 | ... | 150 | 17 | 8·5 | 8·6 |
| 98 | ... ... ... | Dec. 13 | M | 2 | 53 | 15·55 | 4 | 146 | 44 | 28·5 | 8·4 |
| 99 | 969 Lacaille ... ... | Jan. 15 | M | 2 | 54 | 53·50 | | 144 | 13 | 57·3 | 7·9 |
| 100 | 92 Ceti α ... ... | Jan. 7 | M | 2 | 55 | 10·37 | ... | 86 | 26 | 46·3 | .. |
| | ... ... .. | Nov. 21 | R | | 55 | 10·32 | ... | | 26 | 47·0 | — |
| | ... .. | ,, 23 | R | | 55 | 10·38 | ... | | 26 | 46·5 | |
| | ... ... ... | Dec. 7 | M | | 55 | 10·17 | ... | | 26 | 46·2 | |
| | . ... ... | ,, 9 | M | | 55 | 10·33 | ... | | 26 | 46·3 | .. |
| | .. ... | ,, 12 | M | | 55 | 10·35 | ... | | 26 | 46·6 | — |
| | ... . ... | ,, 23 | R | | 55 | 10·29 | | | 26 | 47·0 | |
| 101 | ρ Persei Var. 2 .. | Jan. 6 | M | 2 | 56 | 27·54 | 4 | 51 | 41 | 23·1 | — |
| 102 | 1037 Taylor .. .. | Jan. 11 | M | 2 | 58 | 53·97 | 5 | 150 | 21 | 25·5 | 9·3 |
| | .. .. .. | ,, 12 | M | | 58 | 54·23 | | | 21 | 23·8 | 9·1 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 103 | β Persei Var. 1 ... | Nov. | 4 | M | 2 | 59 | 20·60 | 5 | 49 | 34 | 17·7 | .. |
| | .. ... | ,, | 29 | R | | 59 | 20·41 | ... | | 34 | 17·0 | ... |
| 104 | 1047 Taylor . .. | Jan. | 18 | M | 2 | 59 | 51·39 | 5 | 151 | 19 | 52·9 | 6·8 |
| | . ... .. | Dec. | 23 | R | | 59 | 51·61 | 3 | | 10 | 53·5 | 7·8 |
| 105 | 1052 Taylor ... ... | Jan. | 16 | M | 3 | 0 | 25·00 | 5 | 150 | 16 | 1·7 | 6·0 |
| 106 | 33 R. P. L. s.p. | June. | 4 | R | 3 | 0 | 42·11 | 5 | 5 | 34 | 52·8 | ... |
| 107 | 57 Arietis δ | Nov. | 21 | R | 3 | 3 | 51·30 | ... | 70 | 47 | 25·0 | .. |
| | ... ... | ,, | 23 | R | | 3 | 51·33 | 5 | | 47 | 26·3 | .. |
| | . . ... | ,, | 29 | R | | 3 | 51·32 | 4 | | 47 | 26·3 | . |
| | .. ... ... | ,, | 30 | R | | 3 | 51·35 | ... | | 47 | 26·5 | ... |
| | ... ... ... | Dec. | 5 | M | | 3 | 51·35 | ... | | 47 | 25·2 | ... |
| | ... ... | ,, | 7 | M | | 3 | 51·45 | ... | | 47 | 26·8 | ... |
| | ... ... ... | ,, | 10 | M | | 3 | 51·35 | ... | | 47 | 25·9 | ... |
| | ... ... ... | ,, | 12 | M | | 3 | 51·35 | ... | | 47 | 26·5 | .. |
| | ... ... ... | ,, | 21 | R | | 3 | 51·26 | ... | | 47 | 25·9 | ... |
| 108 | 1007 Lacaille .. .. | Jan. | 19 | M | 3 | 4 | 48·78 | ... | 152 | 14 | 28·7 | 7·0 |
| 109 | 1092 Taylor .. .. | Jan. | 11 | M | 3 | 7 | 15·46 | .. | 148 | 19 | 28·9 | 7·1 |
| | . .. | ,, | 15 | M | | 7 | 15·63 | ... | | 19 | 28·1 | 6·7 |
| | .. . | Dec. | 6 | M | | 7 | 15·60 | 6 | | 19 | 31·1 | 7·0 |
| 110 | .. .. | Dec. | 13 | M | 3 | 7 | 16·15 | 3 | 145 | 40 | 32·5 | 9·0 |
| 111 | .. .. ... | Jan. | 12 | M | 3 | 12 | 41·14 | 5 | 130 | 50 | 15·5 | 8·6 |
| 112 | 33 Persei α .. .. | Nov. | 24 | R | 3 | 14 | 37·52 | ... | 40 | 37 | 34·4 | . |
| | ... ... . | ,, | 25 | R | | 14 | 37·61 | ... | | 37 | 35·3 | ... |
| | ... ... ... | Dec. | 16 | R | | 14 | 37·59 | .. | | 37 | 33·8 | .. |
| 113 | .. .. ... | Jan. | 16 | M | 3 | 14 | 51·02 | 5 | 150 | 6 | 18·7 | 9·0 |
| 114 | ζ¹ Reticuli . ... | Jan. | 19 | M | 3 | 15 | 15·79 | 5 | 153 | 1 | 37·7 | 5·9 |
| | . ... | ,, | 28 | R | | 15 | 15·62 | 4 | | 1 | 38·2 | 6·3 |
| 115 | ... .. | Jan. | 5 | M | 3 | 20 | 18·17 | ... | 140 | 18 | 56·3 | 7·8 |

## *Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer | Mean Right Ascension 1864. | | | No. of Wires. | Mean Polar Distance 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 116 | ... .. .. | Jan. | 15 | M | 3 | 20 | 34·44 | 5 | 149 | 28 | 25·7 | 7·3 |
| | ... . ... | ,, | 18 | M | | 20 | 34·25 | ... | | 28 | 30·8 | 7·4 |
| 117 | ... .. ... | Jan. | 7 | M | 3 | 22 | 0·03 | | 88 | 12 | 26·3 | 7·5 |
| 118 | 34 R. P. L. ... ... | Jan. | 4 | M | 3 | 22 | 14·89 | 3 | 3 | 47 | 26·9 | ... |
| | ... ... ... | Nov. | 22 | R | | 22 | 16·53 | 3 | | 47 | 25·1 | ... |
| | .. .. ... | Dec. | 20 | R | | 22 | 17·31 | 3 | | 47 | 29·5 | ... |
| 119 | 1143 Lacaille ... | Jan. | 19 | M | 3 | 27 | 0·48 | 5 | 153 | 25 | 6·9 | 5·7 |
| | .. .. ... | ,, | 21 | M | | 27 | 0·86 | 3 | | 25 | 6·0 | ... |
| 120 | 1150 Lacaille ... | Dec. | 14 | M | 3 | 28 | 20·56 | 3 | 152 | 28 | 17·6 | 7·7 |
| 121 | 1159 Lacaille .. | Jan. | 20 | M | 3 | 30 | 16·54 | ... | 151 | 28 | 33·8 | 6·7 |
| | ... ... ... | ,, | 28 | R | | 30 | 16·11 | .. | | 28 | 31·9 | 7·0 |
| 122 | 1192 Lacaille ... | Jan. | 11 | M | 3 | 34 | 58·48 | ... | 147 | 43 | 46·9 | 8·5 |
| 123 | 1193 Lacaille ... | Jan. | 5 | M | 3 | 35 | 15·49 | ... | 146 | 35 | 14·0 | 8·1 |
| 124 | 1200 Lacaille ... | Jan. | 7 | M | 3 | 36 | 24·51 | ... | 146 | 40 | 31·5 | ... |
| | ... .. ... | ,, | 28 | R | | 36 | 24·26 | 5 | | 40 | 30·2 | 6·9 |
| 125 | 17 Tauri (*Electra*) ... | Jan. | 6 | M | 3 | 37 | 48·28 | ... | 66 | 18 | 50·2 | ... |
| 126 | 25 Tauri η (*Alcyone*). | Jan. | 18 | M | 3 | 39 | 24·34 | . | 66 | 19 | 7·2 | ... |
| | ... ... ... | ,, | 19 | M | | 39 | 24·26 | . | | 19 | 7·9 | ... |
| | .. ... .. | Oct. | 17 | R | | 39 | 24·25 | | | 19 | 8·0 | ... |
| | .. .. ... | Nov. | 16 | R | | 39 | 24·27 | ... | | 19 | 7·3 | ... |
| | . .. . | ,, | 21 | R | | 39 | 24·17 | ... | | 19 | 7·4 | ... |
| | ... . . | ,, | 30 | R | | 39 | 24·22 | . | | 19 | 7·7 | ... |
| | .. .. ... | Dec. | 10 | M | | 39 | 24·27 | ... | | 19 | 7·1 | ... |
| | ... ... | ,, | 16 | R | | 39 | 24·26 | ... | | 19 | 7·4 | ... |
| | .. .. ... | ,, | 21 | R | | 39 | 24·23 | ... | | 19 | 6·0 | ... |
| | ... ... . | ,, | 22 | R | | 39 | 24·17 | ... | | 19 | 7·6 | ... |
| | ... ... ... | ,, | 23 | R | | 39 | 24·09 | ... | | 19 | 6·9 | ... |
| 127 | β Reticuli .. ... | Jan. | 20 | M | 3 | 42 | 30·23 | ... | 155 | 14 | 9·2 | 5·7 |
| | ... ... ... | ,, | 27 | R | | 43 | 30·06 | 5 | | 14 | 7·5 | 5·3 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 128 | ... ... ... | Nov. | 24 | R | 3 | 45 | 11·82 | ... | 76 | 27 | 48·7 | 9·0 |
| 129 | ... ... ... | Jan. | 5 | M | 3 | 46 | 32·44 | ... | 146 | 33 | 38·2 | 8·8 |
| | ... ... ... | ,, | 11 | M | | 46 | 32·32 | ... | | 33 | 39·9 | 8·7 |
| 130 | ... ... ... | Jan. | 7 | M | 3 | 48 | 3·85 | 5 | 150 | 50 | 17·3 | 8·0 |
| | ... ... ... | ,, | 12 | M | | 48 | 3·62 | ... | | 50 | 15·8 | 8·6 |
| 131 | 34 Eridani $\gamma^1$ ... | Jan. | 6 | M | 3 | 51 | 41·11 | ... | 103 | 53 | 52·9 | ... |
| | ... ... ... | ,, | 15 | M | | 51 | 41·11 | ... | | 53 | 52·0 | ... |
| | ... ... ... | Nov. | 16 | R | | 51 | 41·07 | ... | | 53 | 52·4 | ... |
| | ... ... ... | ,, | 21 | R | | 51 | 41·13 | ... | | 53 | 52·6 | ... |
| | ... ... ... | ,, | 30 | R | | 51 | 41·07 | 5 | | 53 | 52·7 | ... |
| | ... ... .. | Dec. | 21 | R | | 51 | 41·18 | 5 | | 53 | 52·0 | ... |
| | ... ... .. | ,, | 22 | R | | 51 | 41·11 | ... | | 53 | 52·4 | ... |
| | ... ... ... | ,, | 23 | R | | 51 | 41·18 | 5 | | 53 | 53·0 | ... |
| 132 | λ Tauri Var. 1 ... | Jan. | 29 | R | 3 | 53 | 8·92 | ... | 77 | 53 | 48·7 | 6·3 |
| 133 | ... ... .. | Jan. | 5 | M | 3 | 53 | 40·29 | 5 | 143 | 8 | 23·6 | 7·9 |
| 134 | 1327 Lacaille ... | Jan. | 22 | M | 3 | 54 | 18·80 | ... | 153 | 51 | 27·3 | 5·8 |
| | ... ... ... | ,, | 23 | M | | 54 | 18·90 | 3 | | 51 | 28·3 | 6·0 |
| | ... ... ... | Dec. | 2 | M | | 54 | 18·86 | ... | | 51 | 29·6 | 6·0 |
| 135 | 36 Tauri ... ... | Dec. | 5 | M | 3 | 56 | 13·88 | ... | 66 | 16 | 18·6 | 6·5 |
| | ... ... ... | ,, | 6 | M | | 56 | 13·77 | ... | | 16 | 19·0 | 6·5 |
| | ... ... ... | ,, | 7 | M | | 56 | 13·63 | 5 | | 16 | 18·5 | 6·5 |
| | ... ... .. | ,, | 8 | M | | 56 | 13·63 | 4 | | 16 | 19·1 | 6·5 |
| | ... ... ... | ,, | 9 | M | | 56 | 13·71 | 1 | | 16 | 18·9 | 6·5 |
| | ... ... .. | ,, | 10 | M | | 56 | 13·72 | 4 | | 16 | 18·2 | 6·5 |
| | ... ... ... | ,, | 12 | M | | 56 | 13·92 | ... | | 16 | 19·5 | ... |
| | ... ... ... | ,, | 13 | M | | 56 | 14·01 | 3 | | 16 | 19·4 | ... |
| | ... ... ... | ,, | 14 | M | | 56 | 13·81 | ... | | 16 | 18·6 | 6·5 |
| | ... ... .. | ,, | 16 | R | | 56 | 13·92 | 4 | | 16 | 19·3 | ... |
| 136 | 37 Tauri A[1] ... ... | Oct. | 17 | R | 3 | 56 | 39·51 | ... | 68 | 17 | 36·3 | ... |
| 137 | 1347 Lacaille ... | Jan. | 11 | M | 3 | 58 | 6·93 | ... | 149 | 2 | 35·3 | 7·9 |
| | .. ... ... | ,, | 16 | M | | 58 | 6·81 | ... | | 2 | 34·3 | 7·2 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 138 | 1359 Lacaille ... | Jan. | 7 | M | 4 | 0 | 0·83 | ... | 147 | 50 | 5·9 | 8·7 |
| | ... ... ... | „ | 27 | R | | 0 | 0·59 | ... | | 50 | 2·4 | 9·7 |
| 139 | 1375 Lacaille ... | Jan. | 15 | M | 4 | 2 | 54·42 | ... | 148 | 50 | 46·0 | 8·9 |
| | ... ... ... | „ | 28 | R | | 2 | 54·31 | ... | | 50 | 45·5 | 9·0 |
| 140 | ... ... ... | Jan. | 30 | R | 4 | 3 | 23·80 | 5 | 68 | 30 | 18·3 | 9·8 |
| 141 | 37 Eridani ... ... | Jan. | 5 | M | 4 | 3 | 41·58 | ... | 97 | 16 | 55·3 | 5·6 |
| 142 | ... ... ... | Jan. | 6 | M | 4 | 5 | 0·07 | ... | 150 | 5 | 33·3 | 8·7 |
| | ... ... ... | „ | 12 | M | | 5 | 0·27 | 5 | | 5 | 31·8 | 8·8 |
| 143 | 38 Eridani $o^1$ ... | Jan. | 27 | R | 4 | 5 | 13·64 | ... | 97 | 11 | 41·0 | ... |
| | ... ... ... | „ | 29 | R | | 5 | 13·72 | ... | | 11 | 40·9 | ... |
| | ... ... ... | Nov. | 16 | R | | 5 | 13·59 | 5 | | 11 | 42·2 | ... |
| 144 | ... ... ... | Jan. | 16 | M | 4 | 9 | 18·82 | ... | 149 | 31 | 9·8 | 8·3 |
| | ... ... ... | „ | 20 | M | | 9 | 18·58 | 5 | | 31 | 9·8 | 8·6 |
| 145 | ... ... ... | Nov. | 22 | R | 4 | 9 | 46·60 | ... | 129 | 18 | 57·0 | 8·0 |
| 146 | 1489 Taylor ... .. | Jan. | 7 | M | 4 | 11 | 2·58 | ... | 148 | 22 | 0·7 | 6·9 |
| | ... ... ... | „ | 11 | M | | 11 | 2·73 | ... | | 21 | 59·7 | 7·3 |
| 147 | 1425 Lacaille ... | Jan. | 21 | M | 4 | 13 | 1·45 | ... | 152 | 32 | 4·7 | 5·9 |
| | ... ... ... | „ | 27 | R | | 13 | 1·17 | .. | | 32 | 1·2 | 6·5 |
| 148 | U Tauri Var. 7 ... | Nov. | 24 | R | 4 | 13 | 53·65 | ... | 70 | 30 | 42·4 | 9·7 |
| 149 | T Tauri Var. 6 ... | Jan. | 28 | R | 4 | 14 | 8·74 | 4 | 70 | 47 | 24·9 | 10·5 |
| | ... ... ... | „ | 30 | R | | 14 | 8·94 | ... | | 47 | 27·1 | 10·2 |
| 150 | ε Reticuli ... ... | Jan. | 12 | M | 4 | 14 | 8·76 | ... | 149 | 37 | 48·1 | 5·0 |
| | ... ... .. | „ | 15 | M | | 14 | 8·73 | 5 | | 37 | 48·3 | 5·0 |
| 151 | 1513 Taylor .. ... | Feb. | 3 | M | 4 | 14 | 18·37 | 5 | 151 | 17 | 2·3 | 6·8 |
| | ... ... .. | Nov. | 23 | R | | 14 | 18·14 | 3 | | 17 | 3·0 | 6·5 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 152 | 61 Tauri δ¹ ... ... | Jan. | 18 | M | 4 | 15 | 5·64 | ... | 72 | 46 | 48·2 | ... |
| | ... ... ... | ,, | 19 | M | | 15 | 5·61 | ... | | 46 | 47·9 | ... |
| | ... ... ... | Oct. | 17 | R | | 15 | 5·58 | ... | | 46 | 48·7 | ... |
| 153 | 62 Tauri ... ... | Dec. | 21 | R | 4 | 15 | 47·95 | ... | 66 | 1 | 12·1 | ... |
| | ... ... ... | ,, | 22 | R | | 15 | 47·84 | ... | | 1 | 10·0 | ... |
| 154 | ... ... ... | Jan. | 6 | M | 4 | 16 | 45·55 | ... | 140 | 4 | 26·5 | 8·8 |
| 155 | 69 Tauri υ¹ ... ... | Dec. | 1 | M | 4 | 18 | 10·43 | ... | 67 | 29 | 55·7 | ... |
| | ... ... ... | ,, | 2 | M | | 18 | 10·42 | ... | | 29 | 56·5 | ... |
| | ... ... ... | ,, | 12 | M | | 18 | 10·30 | ... | | 29 | 56·3 | ... |
| | ... ... ... | ,, | 14 | M | | 18 | 10·28 | ... | | 29 | 55·1 | ... |
| | ... ... ... | ,, | 15 | R | | 18 | 10·47 | ... | | 29 | 54·8 | ... |
| | ... ... ... | ,, | 16 | R | | 18 | 10·38 | ... | | 29 | 54·7 | ... |
| | ... ... ... | ,, | 17 | R | | 18 | 10·36 | ... | | 29 | 55·1 | ... |
| 156 | 74 Tauri ε ... ... | Jan. | 5 | M | 4 | 20 | 40·64 | 5 | 71 | 7 | 28·9 | ... |
| | ... ... ... | ,, | 7 | M | | 20 | 40·60 | ... | | 7 | 29·0 | ... |
| | ... ... ... | ,, | 11 | M | | 20 | 40·70 | ... | | 7 | 28·7 | ... |
| | ... ... ... | ,, | 12 | M | | 20 | 40·79 | ... | | 7 | 29·1 | ... |
| | ... ... ... | ,, | 15 | M | | 20 | 40·80 | ... | | 7 | 29·3 | ... |
| | ... ... ... | ,, | 16 | M | | 20 | 40·63 | ... | | 7 | 28·2 | ... |
| | ... ... ... | ,, | 18 | M | | 20 | 40·71 | ... | | 7 | 30·3 | ... |
| | ... ... ... | ,, | 19 | M | | 20 | 40·66 | ... | | 7 | 29·8 | ... |
| | ... ... ... | Oct. | 17 | R | | 20 | 40·69 | ... | | 7 | 31·0 | ... |
| | ... ... ... | Dec. | 13 | M | | 20 | 40·80 | ... | | 7 | 30·0 | ... |
| | ... ... ... | ,, | 16 | R | | 20 | 40·70 | ... | | 7 | 29·6 | ... |
| | ... ... ... | ,, | 22 | R | | 20 | 40·66 | ... | | 7 | 29·1 | ... |
| | ... ... ... | ,, | 23 | R | | 20 | 40·63 | ... | | 7 | 29·5 | ... |
| 157 | R Tauri Var. 2 ... | Jan. | 29 | R | 4 | 20 | 51·25 | 4 | 80 | 8 | 38·1 | 10·0 |
| | ... ... ... | Feb. | 1 | R | | 20 | 50·89 | 4 | | 8 | 37·2 | 9·7 |
| 158 | ... ... ... | Jan. | 30 | R | 4 | 22 | 21·53 | 5 | 80 | 21 | 15·0 | 10·3 |
| | ... ... ... | Nov. | 24 | R | | 22 | 21·81 | ... | | 21 | 14·4 | 10·0 |
| 159 | 1582 Taylor ... ... | Jan. | 21 | M | 4 | 23 | 12·66 | 5 | 151 | 32 | 49·3 | 6·0 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension. 1864. h. | m. | s. | No. of Wires. | Mean Polar Distance. 1864. ° | ′ | ″ | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 160 | 1519 Lacaille ... | Jan. 20 | M | 4 | 25 | 35·43 | ... | 153 | 6 | 7·6 | 8·0 |
| | ... ... ... | Feb. 2 | R | | 25 | 35·40 | 5 | | 6 | 5·6 | 8·3 |
| 161 | 1520 Lacaille ... | Jan. 6 | M | 4 | 26 | 41·04 | ... | 147 | 29 | 2·1 | 8·6 |
| | ... ... ... | Dec. 7 | M | | 26 | 41·09 | 2 | | 29 | 2·7 | 8·2 |
| 162 | 87 Tauri α (*Aldebaran*) | Jan. 5 | M | 4 | 28 | 7·21 | ... | 73 | 46 | 4·1 | ... |
| | ... ... ... | „ 11 | M | | 28 | 7·17 | ... | | 46 | 4·0 | ... |
| | ... ... ... | „ 12 | M | | 28 | 7·17 | ... | | 46 | 3·9 | ... |
| | ... ... ... | „ 15 | M | | 28 | 6·98 | ... | | 46 | 4·7 | ... |
| | ... ... ... | „ 16 | M | | 28 | 7·16 | ... | | 46 | 2·8 | ... |
| | ... ... ... | Feb. 5 | R | | 28 | 7·15 | ... | | 46 | 2·3 | ... |
| | ... ... ... | Dec. 12 | M | | 28 | 7·20 | ... | | 46 | 4·2 | ... |
| | ... ... ... | „ 13 | M | | 28 | 7·26 | ... | | 46 | 3·1 | ... |
| | ... ... ... | „ 16 | R | | 28 | 7·11 | ... | | 46 | 3·4 | ... |
| 163 | R Reticuli Var. 1 ... | Feb. 9 | M | 4 | 32 | 8·35 | ... | 153 | 18 | 40·4 | 8·5 |
| 164 | 1V 696 W. B. N. ... | Dec. 13 | M | 4 | 32 | 36·08 | ... | 66 | 27 | 30·3 | 9·0 |
| | ... ... ... | „ 15 | R | | 32 | 36·17 | ... | | 27 | 29·8 | 9·0 |
| | ... ... ... | „ 21 | R | | 32 | 35·97 | 6 | | 27 | 30·7 | 9·5 |
| | ... ... ... | „ 22 | R | | 33 | 35·90 | 5 | | 27 | 29·0 | 9·2 |
| 165 | ... ... ... | Jan. 7 | M | 4 | 33 | 32·32 | ... | 144 | 53 | 49·8 | 8·5 |
| | ... ... ... | „ 21 | M | | 33 | 32·49 | 5 | | 53 | 50·6 | 8·5 |
| 166 | 1V 726 W. B. N. ... | Nov. 24 | R | 4 | 33 | 50·91 | ... | 66 | 15 | 17·6 | 8·0 |
| | ... ... ... | „ 25 | R | | 33 | 50·93 | ... | | 15 | 17·2 | ... |
| | ... ... ... | „ 29 | R | | 33 | 50·98 | ... | | 15 | 18·1 | ... |
| | ... ... ... | Dec. 16 | R | | 33 | 50·93 | 5 | | 15 | 17·3 | ... |
| | ... ... ... | „ 17 | R | | 33 | 50·98 | ... | | 15 | 16·9 | 8·2 |
| | ... ... ... | „ 22 | R | | 33 | 50·86 | 5 | | 15 | 17·2 | 8·0 |
| 167 | 94 Tauri τ ... ... | Dec. 1 | M | 4 | 34 | 5·16 | 5 | 67 | 18 | 27·9 | ... |
| | ... ... .. | „ 2 | M | | 34 | 5·22 | ... | | 18 | 27·7 | ... |
| | ... ... ... | „ 6 | M | | 34 | 5·05 | ... | | 18 | 27·2 | ... |
| | ... ... ... | „ 7 | M | | 34 | 4·99 | 4 | | 18 | 28·0 | ... |
| | ... ... ... | „ 8 | M | | 34 | 4·97 | ... | | 18 | 28·1 | ... |
| | ... ... ... | „ 9 | M | | 34 | 4·98 | ... | | 18 | 27·5 | ... |
| | ... ... ... | „ 10 | M | | 34 | 5·01 | ... | | 18 | 27·1 | ... |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 168 | 95 Tauri ... ... | Nov. | 23 | R | 4 | 35 | 0·01 | 3 | 66 | 10 | 22·0 | 6·5 |
| 169 | 1567 Lacaille ... | Jan. | 22 | M | 4 | 35 | 11·25 | ... | 152 | 20 | 46·8 | 5·6 |
| | ... ... ... | ,, | 23 | M | | 35 | 11·05 | ... | | 20 | 46·4 | 5·7 |
| | ... ... .. | Feb. | 3 | M | | 35 | 11·20 | 2 | | 20 | 47·8 | 6·2 |
| 170 | 1566 Lacaille ... | Jan. | 6 | M | 4 | 35 | 46·00 | ... | 148 | 28 | 26·3 | 7·8 |
| 171 | 1663 Taylor ... ... | Jan. | 15 | M | 4 | 36 | 50·08 | ... | 138 | 49 | 8·3 | 7·0 |
| 172 | 1582 Lacaille .. | Jan. | 20 | M | 4 | 37 | 18·87 | 5 | 152 | 38 | 44·3 | 7·7 |
| | ... ... .. | ,, | 28 | R | | 37 | 13·35 | ... | | 38 | 42·5 | 9·2 |
| 173 | ... ... ... | Jan. | 16 | M | 4 | 40 | 19·36 | ... | 151 | 20 | 52·4 | 8·7 |
| | ... ... ... | ,, | 27 | R | | 40 | 19·09 | 5 | | 20 | 52·7 | 9·8 |
| 174 | κ Doradûs ... ... | Jan. | 7 | M | 4 | 42 | 18·41 | 3 | 149 | 59 | 1·5 | 6·0 |
| | ... ... ... | ,, | 11 | M | | 42 | 18·49 | ... | | 58 | 59·0 | 6·5 |
| | ... ... ... | Feb. | 9 | M | | 42 | 18·40 | ... | | 59 | 0·3 | 6·5 |
| 175 | 1629 Lacaille ... | Jan. | 21 | M | 4 | 43 | 42·96 | 5 | 153 | 28 | 32·3 | 6·0 |
| | ... ... ... | Feb. | 4 | R | | 43 | 42·96 | ... | | 28 | 33·0 | 7·0 |
| 176 | IV 995 W. B. N. ... | Nov. | 24 | R | 4 | 45 | 6·60 | ... | 66 | 3 | 10·3 | 8·2 |
| | ... ... ... | Dec. | 1 | M | | 45 | 6·66 | .. | | 3 | 10·5 | 8·0 |
| | ... ... ... | ,, | 2 | M | | 45 | 6·55 | ... | | 3 | 10·3 | 8·0 |
| | ... ... ... | ,, | 7 | M | | 45 | 6·50 | ... | | 3 | 9·7 | 8·0 |
| | ... ... ... | ,, | 8 | M | | 45 | 6·51 | ... | | 3 | 9·3 | 8·0 |
| | ... ... ... | ,, | 9 | M | | 45 | 6·47 | ... | | 3 | 10·3 | 7·9 |
| | ... ... ... | ,, | 10 | M | | 45 | 6·54 | 4 | | 3 | 9·1 | 8·0 |
| | ... ... ... | ,, | 14 | M | | 45 | 6·65 | 5 | | 3 | 9·2 | 8·0 |
| | ... ... ... | ,, | 22 | R | | 45 | 6·57 | ... | | 3 | 9·5 | ... |
| 177 | ... ... ... | Feb. | 10 | M | 4 | 45 | 55·56 | ... | 153 | 4 | 2·2 | 8·8 |
| 178 | IV 1018 W. B. N. ... | Nov. | 23 | R | 4 | 45 | 58·58 | ... | 66 | 13 | 39·8 | ... |
| | ... ... ... | | 25 | R | | 45 | 58·66 | ... | | 13 | 39·2 | ... |
| | ... ... ... | ,, | 29 | R | | 45 | 58·60 | ... | | 13 | 39·7 | ... |
| | ... ... ... | Dec. | 6 | M | | 45 | 58·58 | 4 | | 13 | 38·1 | 8·0 |

## *Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 178 | 1V 1018 W. B. N. ... | Dec. | 13 | M | 4 | 45 | 58·65 | ... | 66 | 13 | 39·9 | 8·0 |
| | ... ... ... | ,, | 15 | R | | 45 | 58·71 | ... | | 13 | 39·5 | 8·5 |
| | ... ... ... | ,, | 17 | R | | 45 | 58·65 | 5 | | 13 | 39·4 | 8·2 |
| | ... ... ... | ,, | 20 | R | | 45 | 58·67 | 5 | | 13 | 39·2 | ... |
| | ... ... ... | ,, | 21 | R | | 45 | 58·62 | ... | | 13 | 39·8 | 8·3 |
| 179 | 1656 Lacaille ... | Jan. | 15 | M | 4 | 47 | 56·28 | ... | 149 | 1 | 59·9 | 7·9 |
| | ... ... ... | ,, | 20 | M | | 47 | 55·98 | 5 | | 2 | 1·7 | 7·8 |
| | ... ... ... | ,, | 21 | M | | 47 | 55·92 | 3 | | 2 | 1·8 | 7·9 |
| 180 | 3 Aurigæ ι ... .. | Jan. | 6 | M | 4 | 48 | 8·42 | ... | 57 | 3 | 12·5 | ... |
| | ... ... ... | ,, | 12 | M | | 48 | 8·34 | ... | | 3 | 11·9 | ... |
| | ... ... ... | ,, | 22 | M | | 48 | 8·40 | ... | | 3 | 12·3 | ... |
| | ... ... ... | ,, | 23 | M | | 48 | 8·43 | ... | | 3 | 11·7 | ... |
| | ... ... ... | ,, | 28 | R | | 48 | 8·45 | ... | | 3 | 10·6 | ... |
| | ... ... ... | Feb. | 5 | R | | 48 | 8·48 | ... | | 3 | 11·1 | .. |
| | ... ... ... | ,, | 8 | R | | 48 | 8·55 | ... | | 3 | 10·8 | ... |
| | ... ... ... | ,, | 12 | M | | 48 | 8·41 | ... | | 3 | 11·9 | ... |
| 181 | 99 Tauri ... .. | Nov. | 16 | R | 4 | 49 | 33·66 | ... | 66 | 16 | 3·3 | ... |
| | ... ... ... | ,, | 21 | R | | 49 | 33·63 | 6 | | 16 | 3·8 | ... |
| | ... ... ... | ,, | 22 | R | | 49 | 33·62 | 6 | | 16 | 2·4 | ... |
| | ... ... ... | ,, | 23 | R | | 49 | 33·75 | 5 | | 16 | 4·4 | ... |
| | ... ... ... | ,, | 25 | R | | 49 | 33·77 | 4 | | 16 | 3·5 | ... |
| | ... ... ... | ,, | 29 | R | | 49 | 33·58 | ... | | 16 | 3·7 | ... |
| 182 | 1761 Taylor ... ... | Jan. | 11 | M | 4 | 49 | 59·57 | ... | 129 | 18 | 38·7 | 7·1 |
| 183 | 1780 Taylor ... ... | Jan. | 7 | M | 4 | 52 | 15·36 | ... | 144 | 28 | 49·0 | 7·5 |
| 184 | ... ... ... | Jan. | 5 | M | 4 | 52 | 18·70 | ... | 129 | 30 | 52·4 | 9·0 |
| 185 | ... ... ... | Dec. | 14 | M | 4 | 52 | 40·71 | ... | 130 | 37 | 52·6 | 9·1 |
| 186 | 1797 Taylor ... . | Jan. | 15 | M | 4 | 54 | 51·54 | .. | 148 | 16 | 56·6 | 6·8 |
| | ... ... .. | ,, | 16 | M | | 54 | 51·26 | ... | | 16 | 58·3 | 6·7 |
| 187 | 102 Tauri ι ... ... | Feb. | 10 | M | 4 | 54 | 58·24 | 5 | 68 | 36 | 28·0 | 5·0 |
| | ... ... .. | ,, | 16 | R | | 54 | 58·12 | .. | | 36 | [illegible] | .. |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 188 | 1697 Lacaille .. .. | Feb. | 2 | R | 4 | 56 | 51·21 | 5 | 129 | 7 | 11·5 | 8·7 |
| 189 | 1811 Taylor ... .. | Jan. | 18 | M | 4 | 57 | 2·80 | ... | 129 | 55 | 3·5 | 6·0 |
| 190 | 1705 Lacaille ... | Jan. | 20 | M | 4 | 57 | 25·62 | ... | 129 | 16 | 33·4 | 7·7 |
| | ... ... .. | ,, | 29 | R | | 57 | 25·51 | ... | | 16 | 32·2 | ... |
| | ... ... ... | Dec. | 17 | R | | 57 | 25·70 | ... | | 16 | 34·7 | 8·0 |
| 191 | 104 Tauri *m* ... ... | Feb. | 16 | R | 4 | 59 | 24·97 | 5 | 71 | 32 | 28·9 | ... |
| 192 | 2 Leporis ε ... ... | Jan. | 19 | M | 4 | 59 | 42·18 | ... | 112 | 33 | 23·7 | ... |
| | ... ... ... | ,, | 27 | R | | 59 | 42·23 | ... | | 33 | 21·5 | ... |
| | ... ... ... | ,, | 28 | R | | 59 | 42·19 | ... | | 33 | 21·5 | ... |
| | ... ... ... | Feb. | 11 | M | | 59 | 42·31 | ... | | 33 | 23·0 | ... |
| | ... ... ... | ,, | 12 | M | | 59 | 42·18 | ... | | 33 | 22·1 | ... |
| 193 | 103 Tauri ... ... | Nov. | 16 | R | 4 | 59 | 49·43 | ... | 65 | 55 | 7·3 | ... |
| | ... ... ... | ,, | 21 | R | | 59 | 49·38 | ... | | 55 | 6·4 | ... |
| | ... ... ... | ,, | 23 | R | | 59 | 49·43 | 3 | | 55 | 7·5 | ... |
| | ... ... ... | ,, | 25 | R | | 59 | 49·45 | ... | | 55 | 6·9 | ... |
| 194 | 1739 Lacaille ... | Jan. | 7 | M | 5 | 2 | 51·42 | ... | 146 | 57 | 53·9 | 8·4 |
| | ... ... .. | Dec. | 22 | R | | 2 | 51·39 | ... | | 57 | 53·5 | 8·7 |
| 195 | 13 Aurigæ α (*Capella*) | Jan. | 23 | M | 5 | 6 | 38·82 | ... | 44 | 8 | 40·5 | ... |
| | ... ... ... | ,, | 29 | R | | 6 | 38·67 | ... | | 8 | 40·0 | ... |
| 196 | 19 Orionis β (*Rigel*). | Jan. | 18 | M | 5 | 7 | 59·98 | ... | 98 | 21 | 43·2 | ... |
| | ... ... ... | ,, | 20 | M | | 8 | 0·13 | ... | | 21 | 43·3 | ... |
| | ... ... ... | ,, | 21 | M | | 8 | 0·20 | ... | | 21 | 42·7 | ... |
| | ... ... ... | ,, | 27 | R | | 8 | 0·13 | ... | | 21 | 41·6 | ... |
| | ... ... ... | ,, | 28 | R | | 8 | 0·13 | ... | | 21 | 42·5 | ... |
| | ... ... ... | Feb. | 13 | M | | 8 | 0·16 | ... | | 21 | 41·1 | ... |
| | ... ... ... | Dec. | 14 | M | | 8 | 0·22 | ... | | 21 | 42·5 | ... |
| 197 | ... ... ... | Jan. | 15 | M | 5 | 8 | 29·40 | ... | 150 | 36 | 21·0 | 9·2 |
| | ... ... ... | Feb. | 3 | M | | 8 | 29·43 | 3 | | 36 | 20·6 | 9·0 |
| 198 | ... ... ... | Nov. | 24 | R | 5 | 10 | 55·76 | ... | 129 | 48 | 31·6 | 9·2 |
| | ... ... ... | Dec. | 23 | R | | 10 | 55·46 | 4 | | 48 | 31·8 | 9·5 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 199 | ... ... ... | Jan. | 19 | M | 5 | 13 | 25·23 | 5 | 153 | 41 | 45·5 | 7·9 |
| | ... ... ... | ,, | 29 | R | | 13 | 25·15 | ... | | 41 | 42·6 | ... |
| 200 | ... ... ... | Feb. | 15 | M | 5 | 14 | 50·32 | 5 | 153 | 29 | 22·4 | 8·0 |
| 201 | ... ... ... | Jan. | 20 | M | 5 | 17 | 37·82 | 5 | 153 | 7 | 21·9 | 8·2 |
| | ... ... ... | Feb. | 2 | R | | 17 | 37·76 | ... | | 7 | 18·0 | 8·5 |
| 202 | 112 Tauri β ... ... | Jan. | 16 | M | 5 | 17 | 41·80 | ... | 61 | 30 | 41·5 | ... |
| | ... ... ... | Feb. | 12 | M | | 17 | 41·83 | .. | | 30 | 41·5 | ... |
| | ... ... ... | Dec. | 14 | M | | 17 | 41·76 | ... | | 30 | 42·0 | ... |
| 203 | 40 R. P. L. ... s.p. | June | 16 | R | 5 | 18 | 45·12 | 3 | 4 | 53 | 3·4 | ... |
| 204 | 1984 Taylor ... ... | Jan. | 21 | M | 5 | 18 | 51·39 | 5 | 150 | 54 | 50·3 | 7·9 |
| | ... ... ... | Feb. | 4 | R | | 18 | 51·29 | 4 | | 54 | 50·7 | 7·3 |
| 205 | ... ... ... | Feb. | 3 | M | 5 | 19 | 4·78 | ... | 148 | 14 | 18·4 | 9·0 |
| 206 | ... ... ... | Jan. | 18 | M | 5 | 19 | 45·66 | ... | 131 | 3 | 51·0 | 9·3 |
| 207 | ... ... ... | Jan. | 27 | R | 5 | 21 | 42·30 | 5 | 59 | 41 | 0·6 | 10·0 |
| | ... ... ... | ,, | 30 | R | | 21 | 42·49 | 3 | | 41 | 0·3 | 10·3 |
| 208 | ... ... ... | Jan. | 22 | M | 5 | 22 | 35·24 | ... | 152 | 42 | 6·4 | 6·5 |
| | ... ... ... | Feb. | 15 | M | | 22 | 35·26 | 4 | | 42 | 6·1 | 8·2 |
| 209 | λ Doradûs ... ... | Jan. | 15 | M | 5 | 24 | 20·65 | 3 | 149 | 1 | 42·6 | 6·1 |
| | ... ... ... | Dec. | 9 | M | | 24 | 20·45 | ... | | 1 | 44·9 | 6·0 |
| 210 | 34 Orionis δ ... ... | Jan. | 23 | M | 5 | 25 | 3·49 | ... | 90 | 24 | 10·1 | ... |
| | ... ... ... | ,, | 29 | R | | 25 | 3·61 | ... | | 24 | 10·9 | ... |
| | ... ... ... | Feb. | 2 | R | | 25 | 3·63 | ... | | 24 | 8·4 | ... |
| 211 | 11 Leporis α ... ... | Feb. | 4 | R | 5 | 26 | 44·07 | ... | 107 | 55 | 19·4 | ... |
| | ... ... ... | Dec. | 21 | R | | 26 | 43·96 | ... | | 55 | 21·0 | ... |
| 212 | 46 Orionis ε ... ... | Jan. | 29 | R | 5 | 29 | 18·84 | ... | 91 | 17 | 22·2 | ... |
| | ... ... ... | Feb. | 2 | R | | 29 | 18·83 | ... | | 17 | 28·1 | ... |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number | Star. | Date of Observation | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 212 | 46 Orionis ε ... ... | Feb. | 3 | M | 5 | 29 | 18·91 | ... | 91 | 17 | 31·4 | ... |
| | ... ... .. | ,, | 8 | R | | 29 | 18·87 | ... | | 17 | 31·2 | ... |
| | ... ... .. | ,, | 16 | R | | 29 | 18·79 | ... | | 17 | 32·5 | ... |
| 213 | 123 Tauri ζ .. .. | Jan. | 19 | M | 5 | 29 | 30·98 | ... | 68 | 56 | 40·3 | ... |
| | ... ... | ,, | 20 | M | | 29 | 31·34 | ... | | 56 | 40·0 | ... |
| | ... | Dec. | 12 | M | | 29 | 30·94 | ... | | 56 | 39·9 | ... |
| | ... ... ... | ,, | 13 | M | | 29 | 31·23 | .. | | 56 | 40·0 | .. |
| 214 | .. ... ... | Jan. | 15 | M | 5 | 30 | 59·54 | 3 | 150 | 13 | 1·6 | 7·0 |
| | .. ... .. | Dec. | 17 | R | | 30 | 59·34 | 4 | | 13 | 4·1 | ... |
| 215 | 1949 Lacaille .. | Jan. | 22 | M | 5 | 32 | 15·80 | .. | 154 | 19 | 4·4 | 6·2 |
| 216 | ... ... .. | Jan. | 7 | M | 5 | 32 | 42·28 | 6 | 150 | 11 | 35·1 | 8·9 |
| | ... ... ... | Feb. | 15 | M | | 32 | 42·66 | 5 | | 11 | 34·6 | 8·3 |
| | ... ... .. | Dec. | 17 | R | | 32 | 42·42 | 4 | | 11 | 36·4 | ... |
| 217 | α Columbæ ... ... | Feb | 1 | R | 5 | 34 | 43·58 | ... | 124 | 8 | 55·4 | ... |
| | ... ... .. | ,, | 2 | R | | 34 | 43·53 | ... | | 8 | 52·6 | ... |
| | .. ... ... | ,, | 3 | R | | 34 | 43·53 | 3 | | 8 | 55·2 | ... |
| | . ... . | ,, | 4 | R | | 34 | 43·54 | ... | | 8 | 56·1 | ... |
| | | ,, | 8 | R | | 34 | 43·46 | ... | | 8 | 56·5 | .. |
| | .. .. .. | Dec. | 15 | R | | 34 | 43·45 | ... | | 8 | 56·0 | ... |
| 218 | 2113 Taylor ... ... | Jan. | 5 | M | 5 | 35 | 8·22 | . | 130 | 45 | 35·4 | 8·5 |
| 219 | 1971 Lacaille .. | Jan. | 11 | M | 5 | 36 | 21·37 | ... | 149 | 11 | 31·9 | 7·0 |
| | ... ... .. | Feb. | 9 | M | | 36 | 21·57 | . | | 11 | 31·7 | 7·1 |
| 220 | ... ... . | Jan. | 28 | R | 5 | 36 | 43·56 | ... | 129 | 57 | 50·9 | 9·6 |
| 221 | 2184 Taylor ... .. | Feb. | 11 | M | 5 | 43 | 54·43 | 4 | 150 | 46 | 23·9 | 8·8 |
| | .. . ... | Dec. | 23 | R | | 43 | 54·56 | 3 | | 46 | 25·2 | 9·3 |
| 222 | ... ... .. | Jan. | 19 | M | 5 | 44 | 9·32 | .. | 152 | 58 | 5·0 | 9·0 |
| | — ... .. | Feb. | 3 | R | | 44 | 9·73 | .. | | 58 | 0·0 | 9·2 |
| 223 | 54 Orionis $\chi^1$ .. | Dec. | 12 | M | 5 | 46 | 19·65 | . | 60 | 45 | 11·2 | . |
| | ... ... .. | ,, | 13 | M | | 46 | 19·74 | ... | | 45 | 12·4 | .. |

## *Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 224 | α Orionis Var. 1 ... | Jan. | 23 | M | 5 | 47 | 48.67 | ... | 82 | 37 | 17.9 | — |
| | ... ... ... | Feb. | 3 | M | | 47 | 48.52 | .. | | 37 | 17.2 | ... |
| | ... ... ... | Dec. | 14 | M | | 47 | 48.55 | ... | | 37 | 17.1 | — |
| | ... ... .. | ,, | 15 | R | | 47 | 48.64 | ... | | 37 | 15.4 | ... |
| 225 | ... ... .. | Feb. | 9 | M | 5 | 49 | 28.27 | ... | 63 | 50 | 11.1 | 9.5 |
| | ... ... .. | Dec. | 21 | R | | 49 | 28.58 | ... | | 50 | 14.7 | 9.2 |
| 226 | ... ... ... | Feb. | 2 | R | 5 | 49 | 36.53 | 5 | 130 | 1 | 18.6 | 9.7 |
| 227 | 43 R. P. L. ... s.p. | Aug. | 11 | M | 5 | 52 | 0.00 | 3 | 3 | 14 | 22.0 | ... |
| 228 | ... ... ... | Jan. | 20 | M | 5 | 52 | 41.05 | ... | 129 | 32 | 33.9 | 9.0 |
| 229 | ... ... ... | Dec. | 22 | R | 5 | 53 | 1.65 | . | 130 | 21 | 59.2 | 8.8 |
| 230 | 64 Orionis $\chi^2$ ... | Feb. | 16 | R | 5 | 55 | 24.35 | .. | 70 | 18 | 40.6 | ... |
| | ... ... ... | ,, | 17 | R | | 55 | 24.38 | 5 | | 18 | 40.9 | .. |
| 231 | 62 Orionis $\chi^1$ ... | Feb. | 10 | M | 5 | 55 | 50.82 | ... | 69 | 51 | 42.9 | 5.0 |
| 232 | 2301 Taylor ... ... | Feb. | 3 | M | 5 | 58 | 29.56 | 3 | 148 | 6 | 17.9 | 6.5 |
| 233 | 2310 Taylor ... .. | Jan. | 7 | M | 5 | 59 | 37.50 | 5 | 150 | 29 | 7.1 | 6.7 |
| | ... ... .. | ,, | 12 | M | | 59 | 37.55 | ... | | 29 | 6.5 | 6.9 |
| 234 | 67 Orionis ν ... ... | Feb. | 1 | R | 5 | 59 | 48.52 | ... | 75 | 13 | 7.6 | — |
| | ... ... ... | ,, | 9 | M | | 59 | 48.51 | ... | | 13 | 7.7 | .. |
| | .. ... .. | ,, | 11 | M | | 59 | 48.42 | ... | | 13 | 7.7 | .. |
| | .. ... .. | ,, | 16 | R | | 59 | 48.50 | 5 | | 13 | 9.0 | |
| | ... ... ... | ,, | 17 | R | | 59 | 48.41 | .. | | 13 | 8.0 | . |
| | ... ... ... | Dec. | 15 | R | | 59 | 48.44 | . | | 13 | 8.1 | ... |
| 235 | .. ... ... | Feb. | 12 | M | 6 | 2 | 21.04 | ... | 153 | 44 | 30.2 | 8.8 |
| 236 | ... ... ... | Feb. | 10 | M | 6 | 8 | 35.05 | 5 | 155 | 3 | 29.5 | 9.8 |
| | ... ... ... | Dec. | 23 | R | | 8 | 35.01 | ... | | 3 | 31.6 | 9.2 |
| 237 | ... .. .. | Feb. | 1 | R | 6 | 8 | 53.37 | ... | 130 | 31 | 33.4 | 9.5 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 238 | ... ... ... | Mar. | 2 | M | 6 | 10 | 6·15 | ... | 153 | 14 | 23·0 | 9·6 |
| 239 | ... . ... | Jan. | 5 | M | 6 | 11 | 2·62 | .. | 140 | 53 | 52·1 | 7·0 |
| | . ... ... | Feb. | 8 | R | | 11 | 2·53 | ... | | 53 | 50·8 | 7·0 |
| 240 | ... ... ... | Feb. | 12 | M | 6 | 11 | 42·86 | 5 | 152 | 1 | 49·0 | ... |
| | ... .. ... | Mar. | 1 | M | | 11 | 43·21 | 5 | | 1 | 49·0 | 8·8 |
| 241 | 13 Geminorum $\mu$ ... | Jan. | 20 | M | 6 | 14 | 43·96 | ... | 67 | 25 | 14·6 | ... |
| | ... ... ... | ,, | 21 | M | | 14 | 43·96 | ... | | 25 | 15·0 | ... |
| | ... ... | ,, | 30 | R | | 14 | 43·96 | 3 | | 25 | 14·7 | ... |
| | ... .. ... | Feb | 4 | R | | 14 | 43·98 | ... | | 25 | 13·6 | ... |
| | ... ... .. | ,, | 9 | M | | 14 | 43·94 | ... | | 25 | 14·8 | ... |
| | ... ... ... | Dec. | 13 | M | | 14 | 44·02 | ... | | 25 | 14·8 | ... |
| | ... ... ... | ,, | 14 | M | | 14 | 43·99 | ... | | 25 | 14·9 | ... |
| | . ... ... | ,, | 15 | R | | 14 | 44·03 | ... | | 25 | 14·1 | ... |
| 242 | 2273 Lacaille .. | Mar. | 3 | M | 6 | 17 | 3·52 | ... | 153 | 58 | 26·4 | 7·9 |
| | ... ... ... | ,, | 4 | M | | 17 | 3·79 | ... | | 58 | 24·4 | 8·0 |
| 243 | 2286 Lacaille ... | Feb. | 10 | M | 6 | 18 | 48·18 | ... | 153 | 45 | 43·1 | 7·0 |
| | ... ... ... | Mar. | 2 | M | | 18 | 48·38 | 4 | | 45 | 43·6 | 7·0 |
| 244 | $\alpha$ Argûs (*Canopus*) ... | Jan. | 22 | M | 6 | 20 | 56·11 | 5 | 142 | 37 | 20·6 | ... |
| | ... ... ... | ,, | 27 | R | | 20 | 55·92 | ... | | 37 | 18·9 | . |
| | ... ... ... | ,, | 30 | R | | 20 | 55·95 | ... | | 37 | 21·3 | ... |
| 245 | ... . . | Feb. | 8 | R | 6 | 22 | 6·43 | ... | 128 | 48 | 41·2 | 8·5 |
| | .. ... ... | ,, | 9 | M | | 22 | 6·31 | 4 | | 48 | 42·4 | 8·5 |
| 246 | 2312 Lacaille ... | Mar. | 5 | M | 6 | 22 | 8·05 | ... | 153 | 36 | 33·9 | 7·3 |
| 247 | 2524 Taylor ... | Feb. | 1 | R | 6 | 23 | 27·42 | ... | 131 | 3 | 3·0 | 7·2 |
| 248 | 2541 Taylor ... .. | Jan. | 16 | M | 6 | 24 | 54·95 | ... | 147 | 54 | 58·9 | 6·6 |
| | ... .. ... | Feb. | 3 | M | | 24 | 54·98 | 5 | | 54 | 50·7 | 6·1 |
| 249 | ... ... | Feb. | 10 | M | 6 | 27 | 30·41 | ... | 152 | 27 | 51·9 | 9·0 |
| | ... ... . | ,, | 22 | R | | 27 | 30·71 | 4 | | 27 | 51·3 | 9·0 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension. 1864. h. | m. | s. | No. of Wires. | Mean Polar Distance 1864. ° | ′ | ″ | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 250 | ... ... ... | Feb. 1 | R | 6 | 27 | 45·69 | 5 | 131 | 5 | 17·8 | 9·0 |
| | ... ... ... | „ 12 | M | | 27 | 45·35 | 5 | | 5 | 18·0 | 9·0 |
| 251 | ... ... ... | Feb. 8 | R | 6 | 28 | 24·17 | ... | 130 | 55 | 46·3 | 8·9 |
| | ... .. ... | „ 15 | M | | 28 | 24·42 | ... | | 55 | 48·2 | 9·0 |
| 252 | ... ... ... | Mar. 1 | M | 6 | 28 | 39·37 | 3 | 151 | 10 | 1·6 | 8·6 |
| | ... ... ... | „ 2 | M | | 28 | 39·06 | ... | | 10 | 1·0 | 8·6 |
| 253 | 24 Geminorum γ ... | Jan. 20 | M | 6 | 29 | 51·28 | ... | 73 | 29 | 18·6 | ... |
| | ... ... ... | „ 30 | R | | 29 | 51·29 | ... | | 29 | 18·3 | ... |
| | ... ... ... | Feb. 11 | M | | 29 | 51·21 | ... | | 29 | 17·7 | ... |
| | ... ... ... | „ 16 | R | | 29 | 51·25 | ... | | 29 | 18·2 | ... |
| | ... ... ... | „ 19 | R | | 29 | 51·27 | ... | | 29 | 17·2 | ... |
| | ... ... ... | Mar. 3 | M | | 29 | 51·39 | ... | | 29 | 17·8 | ... |
| | ... ... ... | „ 4 | M | | 29 | 51·32 | ... | | 29 | 18·3 | ... |
| | ... ... ... | Dec. 13 | M | | 29 | 51·01 | 2 | | 29 | 17·3 | ... |
| | ... ... ... | „ 14 | M | | 29 | 51·28 | ... | | 29 | 19·1 | ... |
| 254 | ... ... ... | Mar. 10 | M | 6 | 33 | 33·10 | 5 | 152 | 27 | 3·8 | 8·8 |
| 255 | ... ... ... | Feb. 3 | M | 6 | 34 | 30·70 | ... | 130 | 27 | 55·6 | 7·7 |
| 256 | 51 Cephei (*Her.*) .. | Jan. 11 | M | 6 | 35 | 39·20 | 3 | 2 | 45 | 18·7 | ... |
| | .. ... ... | „ 15 | M | | 35 | 40·06 | 3 | | 45 | 21·9 | ... |
| | .. ... ... | „ 19 | M | | 35 | 39·37 | 3 | | 45 | 19·8 | ... |
| | ... ... ... | „ 22 | M | | 35 | 38·79 | 2 | | 45 | 20·9 | ... |
| | ... ... .. | „ 28 | R | | 35 | 39·19 | 3 | | 45 | 19·6 | ... |
| | ... ... .. | Feb. 9 | M | | 35 | 38·85 | 3 | | 45 | 20·2 | ... |
| | ... . .. | „ 16 | R | | 35 | 39·17 | 3 | | 45 | 18·6 | ... |
| | ... ... ... | „ 19 | R | | 35 | 38·18 | 3 | | 45 | 17·4 | ... |
| | ... ... ... | „ 26 | R | | 35 | 38·95 | 3 | | 45 | 17·3 | ... |
| | ... — .. | Mar. 3 | M | | 35 | 40·98 | 3 | | 45 | 19·8 | ... |
| | .. ... ... | „ 5 | M | | 35 | 39·41 | 3 | | 45 | 17·6 | ... |
| | .. ... s.p | July 18 | R | | 35 | 38·69 | 3 | | 45 | 18·2 | ... |
| | ... . s.p | Aug. 16 | R | | 35 | 38·96 | 3 | | 45 | 18·3 | ... |
| | ... ... s.p | „ 23 | R | | 35 | 38·27 | 3 | | 45 | 22·0 | ... |
| | . . | Dec. 15 | R | | 35 | 39·37 | 3 | | 45 | 16·7 | ... |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 257 | 2653 Taylor . | Feb. | 10 | M | 6 | 36 | 32·56 | ... | 151 | 24 | 50·1 | 7·0 |
| | . . | ,, | 12 | M | | 36 | 32·80 | 5 | | 24 | 49·1 | 6·9 |
| 258 | ... | Mar. | 8 | M | 6 | 37 | 53·06 | ... | 153 | 20 | 37·4 | 9·3 |
| 259 | 2667 Taylor | Mar. | 7 | M | 6 | 38 | 22·76 | ... | 148 | 59 | 39·8 | 8·1 |
| 260 | .. | Mar | 4 | M | 6 | 39 | 7·42 | 3 | 131 | 3 | 25·0 | 8·6 |
| 261 | 9 Can. Maj. α (*Sirius*) | Jan | 26 | R | 6 | 39 | 9·31 | .. | 106 | 31 | 57·2 | . |
| | .. .. ... | ,, | 27 | R | | 39 | 9·11 | 5 | | 31 | 56·0 | ... |
| | .. ... ... | Feb. | 15 | M | | 39 | 9·22 | 3 | | 31 | 56·5 | .. |
| 262 | ... .. ... | Feb. | 22 | R | 6 | 40 | 29·42 | ... | 131 | 2 | 27·0 | 8·5 |
| | ... .. | Mar. | 9 | M | | 40 | 29·47 | ... | | 2 | 27·2 | 8·3 |
| | ... ... ... | ,, | 10 | M | | 40 | 29·51 | 4 | | 2 | 27·2 | 8·3 |
| 263 | 2724 Taylor .. ... | Mar. | 11 | M | 6 | 44 | 53·27 | 3 | 144 | 36 | 2·0 | 8·5 |
| | ... ... .. | ,, | 14 | M | | 44 | 53·40 | 5 | | 36 | 1·2 | 8·7 |
| 264 | ... ... .. | Feb. | 18 | R | 6 | 46 | 32·75 | 5 | 130 | 10 | 6·9 | 9·5 |
| | .. .. .. | ,, | 29 | R | | 46 | 32·80 | 5 | | 10 | 6·9 | 9·6 |
| 265 | α Pictoris .. | Feb. | 10 | M | 6 | 46 | 47·55 | ... | 151 | 47 | 46·1 | 5·0 |
| | | ,, | 11 | M | | 46 | 47·61 | .. | | 47 | 46·1 | 5·0 |
| 266 | 2500 Lacaille .. | Jan. | 20 | M | 6 | 46 | 59·78 | ... | 130 | 23 | 21·3 | 8·0 |
| | | Mar. | 10 | M | | 47 | 0·31 | .. | | 23 | 19·8 | 7·7 |
| 267 | 2532 Lacaille | Mar. | 7 | M | 6 | 48 | 12·77 | 5 | 150 | 5 | 32·2 | 6·9 |
| | . . | ,, | 8 | M | | 48 | 12·81 | .. | | 5 | 32·7 | 6·9 |
| | | ,, | 9 | M | | 48 | 13·02 | 4 | | 5 | 32·7 | 6·7 |
| 268 | | Feb | 18 | R | 6 | 48 | 50·62 | 5 | 130 | 10 | 16·6 | 9·1 |
| | | ,, | 29 | R | | 48 | 50·49 | 5 | | 10 | 17·3 | 9·4 |
| 269 | .. | Feb. | 4 | R | 6 | 49 | 43·02 | 5 | 129 | 8 | 19·7 | 9·0 |
| 270 | | Jan. | 27 | R | 6 | 50 | 26·01 | 3 | 75 | 17 | 23·8 | 10·7 |
| | | Feb | 1 | R | | 50 | 25·72 | 4 | | 17 | 26·4 | 10·6 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star | Date of Observation. | Observer. | Mean Right Ascension. 1864. h. | m. | s. | No. of Wires. | Mean Polar Distance. 1864. ° | ′ | ″ | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 271 | 21 Canis Majoris ε | Jan. 26 | R | 6 | 53 | 16·91 | ... | 118 | 47 | 22·7 | .. |
| | .. .. ... | „ 30 | R | | 53 | 16·91 | . | | 47 | 20·9 | . |
| | ... .. ... | Feb. 3 | M | | 53 | 16·88 | 3 | | 47 | 21·8 | ... |
| | .. . .. | „ 9 | M | | 53 | 16·81 | .. | | 47 | 20·8 | . |
| | ... ... .. | „ 10 | M | | 53 | 16·82 | ... | | 47 | 21·2 | . |
| | ... .. ... | „ 15 | M | | 53 | 16·95 | | | 47 | 21·1 | |
| | ... . .. | Mar. 14 | M | | 53 | 16·92 | .. | | 47 | 21·1 | .. |
| 272 | .. ... ... | Jan. 29 | R | 6 | 53 | 47·61 | .. | 129 | 47 | 30·1 | 9·3 |
| | .. ... ... | Mar. 10 | M | | 53 | 47·83 | 5 | | 47 | 31·6 | 8·8 |
| | ... .. .. | „ 11 | M | | 53 | 47·95 | ... | | 47 | 32·8 | 8·8 |
| 273 | 3¹ Geminorum (1st). | Feb. 4 | R | 6 | 56 | 1·73 | 4 | 69 | 12 | 28·9 | 8·2 |
| 274 | 3 Geminorum Var. 1. | Jan. 21 | M | 6 | 56 | 2·66 | ... | 69 | 14 | 2·0 | ... |
| | ... . ... | „ 22 | M | | 56 | 2·55 | .. | | 14 | 2·2 | ... |
| | ... ... | Feb. 4 | R | | 56 | 2·51 | 3 | | 14 | 1·3 | ... |
| | ... ... . | „ 17 | R | | 56 | 2·33 | ... | | 14 | 2·4 | .. |
| | ... ... | „ 18 | R | | 56 | 2·37 | ... | | 14 | 1·7 | .. |
| 275 | 2825 Taylor ... .. | Feb. 11 | M | 6 | 56 | 51·97 | . | 150 | 54 | 38·0 | 8·7 |
| | .. .. ... | „ 26 | R | | 56 | 52·08 | ... | | 54 | 37·9 | 9·1 |
| 276 | 23 Canis Majoris γ | Jan. 30 | R | 6 | 57 | 36·32 | ... | 105 | 26 | 5·7 | . |
| | ... .. ... | Feb. 16 | R | | 57 | 36·31 | .. | | 26 | 6·0 | |
| | . ... | „ 19 | R | | 57 | 36·36 | . | | 26 | 5·4 | ... |
| | ... ... | „ 22 | R | | 57 | 36·25 | . | | 26 | 4·8 | .. |
| 277 | ... ... . | Feb. 13 | M | 6 | 58 | 23·12 | ... | 66 | 56 | 5·9 | 9·2 |
| | ... .. ... | Mar. 2 | M | | 58 | 23·27 | ... | | 56 | 5·4 | 9·0 |
| 278 | ... ... | Mar. 8 | M | 6 | 59 | 11·80 | ... | 66 | 59 | 54·9 | 9·0 |
| 279 | ... ... ... | Jan. 28 | R | 6 | 59 | 48·98 | ... | 129 | 43 | 4·3 | 9·3 |
| 280 | 2851 Taylor ... | Mar. 9 | M | 7 | 0 | 49·82 | | 145 | 44 | 48·1 | 7·8 |
| | ... ... | „ 10 | M | | 0 | 49·80 | ... | | 44 | 48·1 | 7·7 |
| 281 | R Canis Min. Var. 1. | Jan. 29 | R | 7 | 1 | 13·77 | 5 | 79 | 45 | 50·6 | 9·3 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h | m. | s. | | ° | ′ | ″ | |
| 282 | 2882 Taylor .. .. | Jan. | 18 | M | 7 | 3 | 26·87 | .. | 151 | 1 | 4·5 | 8·8 |
| | . ... | ,, | 26 | R | | 3 | 27·04 | ... | | 1 | 1·7 | 9·2 |
| | .. .. | Mar. | 11 | M | | 3 | 26·74 | .. | | 1 | 2·0 | 8·7 |
| | ... | ,, | 14 | M | | 3 | 26·96 | .. | | 1 | 2·7 | 8·8 |
| 283 | .. ... | Jan. | 25 | R | 7 | 4 | 58·07 | 5 | 130 | 42 | 33·2 | 9·3 |
| 284 | 2899 Taylor ... | Feb. | 2 | R | 7 | 5 | 47·67 | .. | 130 | 8 | 49·2 | 8·9 |
| 285 | .. | Jan. | 30 | R | 7 | 5 | 51·92 | ... | 129 | 23 | 13·1 | 9·5 |
| 286 | 2678 Lacaille | Mar. | 5 | M | 7 | 6 | 10·50 | ... | 148 | 9 | 13·4 | 8·5 |
| 287 | | Jan | 27 | R | 7 | 6 | 38·61 | ... | 129 | 2 | 41·9 | 8·2 |
| 288 | ... | Jan. | 16 | M | 7 | 7 | 59·34 | ... | 148 | 46 | 2·0 | 9·3 |
| | .. | Feb. | 9 | M | | 7 | 59·51 | 3 | | 46 | 1·7 | 9·9 |
| 289 | .. | Feb. | 11 | M | 7 | 8 | 9·14 | ... | 152 | 5 | 1·5 | 8·9 |
| | .. .. | ,, | 19 | R | | 8 | 9·11 | . | | 5 | 2·1 | 8·9 |
| 290 | 2940 Taylor | Jan | 29 | R | 7 | 9 | 27·96 | 5 | 129 | 57 | 41·1 | 9·0 |
| 291 | 54 Geminorum λ | Feb. | 17 | R | 7 | 10 | 16·53 | . | 73 | 13 | 3·4 | |
| | ... | ,, | 18 | R | | 10 | 16·44 | 5 | | 13 | 3·6 | .. |
| | | Mar | 17 | R | | 10 | 16·37 | . | | 13 | 3·8 | .. |
| 292 | .. | Jan. | 28 | R | 7 | 10 | 16·60 | | 131 | 52 | 8·3 | 9·8 |
| 293 | 55 Geminorum δ | Jan. | 21 | M | 7 | 11 | 59·85 | | 67 | 46 | 16·3 | .. |
| | . | ,, | 22 | M | | 11 | 59·94 | | | 46 | 15·6 | .. |
| | .. | Feb | 1 | R | | 11 | 59·91 | | | 46 | 15·0 | |
| | .. | ,, | 10 | M | | 11 | 59·94 | ... | | 46 | 14·7 | |
| | . | ,, | 13 | M | | 11 | 59·92 | | | 46 | 16·4 | |
| | | ,, | 15 | M | | 11 | 59·98 | . | | 46 | 16·2 | .. |
| | .. | Mar | 1 | M | | 11 | 59·91 | | | 46 | 15·8 | . |
| | . | ,, | 2 | M | | 11 | 59·94 | .. | | 46 | 15·2 | .. |
| | .. ... ... | ,, | 3 | M | | 12 | 0·00 | . | | 46 | 15·7 | . |
| | .. .. | ,, | 4 | M | | 11 | 59·95 | .. | | 46 | 15·6 | .. |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star | Date of Observation. | | Observer. | Mean Right Ascension. 1864 | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ' | " | |
| 294 | ... ... .. | Jan. | 25 | R | 7 | 13 | 1·19 | ... | 129 | 15 | 59·3 | 9·2 |
| 295 | . | Jan. | 26 | R | 7 | 14 | 30·70 | 5 | 138 | 49 | 35·4 | 8·7 |
| 296 | 3005 Taylor . | Mar. | 5 | M | 7 | 15 | 28·64 | 5 | 149 | 0 | 53·6 | 8·7 |
| | ... | „ | 14 | M | | 15 | 28·96 | ... | | 0 | 54·9 | 8·6 |
| 297 | 2805 Lacaille ... | Mar. | 7 | M | 7 | 17 | 21·21 | .. | 153 | 8 | 4·0 | 8·3 |
| 298 | .. .. ... | Feb. | 2 | R | 7 | 18 | 4·08 | ... | 129 | 42 | 31·1 | 9·2 |
| 299 | 3043 Taylor . .. | Feb. | 13 | M | 7 | 19 | 14·01 | 3 | 129 | 16 | 24·8 | 7·0 |
| 300 | . ... | Jan. | 30 | R | 7 | 19 | 35·74 | 5 | 123 | 7 | 59·6 | ... |
| 301 | 63 Geminorum ... | Dec. | 14 | M | 7 | 19 | 39·74 | ... | 68 | 16 | 45·7 | 5·5 |
| | ... .. ... | „ | 15 | R | | 19 | 39·87 | 5 | | 16 | 45·9 | |
| 302 | 3054 Taylor .. ... | Feb. | 11 | M | 7 | 20 | 1·94 | ... | 151 | 41 | 28·7 | 7·0 |
| | .. ... ... | Mar. | 1 | M | | 20 | 2·18 | 4 | | 41 | 28·5 | 7·4 |
| 303 | ... ... ... | Feb. | 4 | R | 7 | 21 | 34·23 | 5 | 131 | 50 | 25·7 | 7·7 |
| 304 | 6 Canis Minoris .. | Feb. | 18 | R | 7 | 22 | 13·39 | ... | 77 | 42 | 55·1 | ... |
| 305 | .. . ... | Jan. | 27 | R | 7 | 23 | 24·08 | 5 | 51 | 57 | 26·3 | 9·8 |
| 306 | ... ... .. | Mar. | 3 | M | 7 | 24 | 58·41 | 4 | 123 | 8 | 19·2 | 9·0 |
| 307 | 8 Canis Minoris Var. 2. | Jan. | 30 | R | 7 | 25 | 20·43 | ... | 81 | 23 | 41·7 | 8·3 |
| 308 | 68 Geminorum ... | Feb. | 18 | R | 7 | 25 | 50·58 | ... | 73 | 53 | 3·0 | ... |
| | . ... .. | „ | 19 | R | | 25 | 50·65 | 5 | | 53 | 4·0 | ... |
| | . ... .. | Mar. | 17 | R | | 25 | 50·60 | 5 | | 53 | 3·2 | ... |
| | ... . .. | Dec. | 15 | R | | 25 | 50·67 | 4 | | 53 | 4·4 | ... |
| 309 | 66 Gem. $\alpha^1$ (*Castor*). | Feb. | 15 | M | 7 | 25 | 55·07 | .. | 57 | 49 | 2·8 | ... |
| | ... . | „ | 17 | M | | 25 | 55·11 | . | | 49 | 1·3 | |
| | ... ... . | „ | 26 | R | | 25 | 55·01 | ... | | 49 | 1·3 | ... |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h | m. | s. | | ° | ′ | ″ | |
| 310 | ... .. ... | Jan. 16 | M | 7 | 26 | 5·18 | ... | 142 | 5 | 53·7 | 8·9 |
| 311 | ... ... ... | Mar 4 | M | 7 | 26 | 48·20 | ... | 123 | 7 | 23·1 | 8·9 |
| | ... ... ... | ,, 5 | M | | 26 | 48·21 | ... | | 7 | 21·6 | 9·0 |
| | ... ... ... | ,, 7 | M | | 26 | 48·36 | ... | | 7 | 22·0 | 9·0 |
| 312 | ... .. ... | Mar. 8 | M | 7 | 27 | 13·25 | ... | 153 | 10 | 42·2 | 9·3 |
| 313 | 3126 Taylor ... ... | Feb. 3 | M | 7 | 29 | 34·20 | 4 | 143 | 15 | 44·3 | 7·1 |
| 314 | 10 Can. Min. (*Procyon*). | Feb. 5 | R | 7 | 32 | 10·96 | ... | 84 | 25 | 47·0 | ... |
| | ... ... ... | ,, 17 | R | | 32 | 10·84 | ... | | 25 | 46·7 | ... |
| | ... ... ... | ,, 18 | R | | 32 | 10·85 | ... | | 25 | 46·5 | ... |
| | ... ... ... | ,, 26 | R | | 32 | 10·86 | ... | | 25 | 45·9 | ... |
| | ... .. ... | Mar. 2 | M | | 32 | 10·84 | ... | | 25 | 45·8 | ... |
| | ... ... ... | ,, 9 | M | | 32 | 10·80 | ... | | 25 | 46·0 | ... |
| | ... ... .. | ,, 10 | M | | 32 | 10·87 | ... | | 25 | 46·3 | ... |
| 315 | 2893 Lacaille ... | Feb. 13 | M | 7 | 32 | 43·53 | ... | 121 | 40 | 28·0 | 8·0 |
| | ... ... ... | Mar. 11 | M | | 32 | 43·28 | ... | | 40 | 27·1 | 7·0 |
| 316 | 2910 Lacaille .. | Feb. 22 | R | 7 | 33 | 17·38 | 5 | 143 | 52 | 51·3 | 7·7 |
| 317 | ... . ... | Feb. 4 | R | 7 | 35 | 10·00 | ... | 66 | 15 | 55·0 | 9·8 |
| 318 | .. ... ... | Mar. 7 | M | 7 | 35 | 19·80 | 3 | 152 | 59 | 34·8 | 8·0 |
| 319 | ... ... ... | Jan. 16 | M | 7 | 35 | 29·22 | ... | 141 | 19 | 41·9 | 8·6 |
| 320 | 78 Gem. β (*Pollux*) .. | Feb. 5 | R | 7 | 36 | 59·34 | ... | 61 | 38 | 56·2 | ... |
| | ... ... ... | ,, 10 | M | | 36 | 59·43 | ... | | 38 | 55·7 | ... |
| | ... ... ... | ,, 18 | R | | 36 | 59·38 | ... | | 38 | 55·7 | ... |
| | . .. ... | Mar. 1 | M | | 36 | 59·40 | ... | | 38 | 56·6 | ... |
| | ... . ... | ,, 2 | M | | 36 | 59·36 | ... | | 38 | 56·5 | ... |
| | ... ... ... | ,, 5 | M | | 36 | 59·63 | 5 | | 38 | 55·8 | ... |
| 321 | 2971 Lacaille ... | Feb. 12 | M | 7 | 40 | 18·18 | ... | 143 | 54 | 58·7 | 7·5 |
| | ... . ... | Mar. 10 | M | | 40 | 18·36 | ... | | 54 | 57·8 | 7·6 |
| 322 | T Geminorum Var. 4. | Feb. 2 | R | 7 | 41 | 8·37 | 4 | 65 | 55 | 48·7 | 10·4 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension, 1864. h. | m. | s. | No. of Wires. | Mean Polar Distance 1864. ° | ′ | ″ | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 323 | ... ... ... | Mar. 8 | M | 7 | 41 | 18·45 | 5 | 151 | 34 | 30·1 | 8·5 |
| 324 | ... .. ... | Feb. 26 | R | 7 | 41 | 32·28 | . | 144 | 18 | 41·3 | 8·7 |
| 325 | 3013 Lacaille ... | Feb. 3 | M | 7 | 43 | 29·04 | 2 | 142 | 0 | 43·3 | 7·0 |
| | ... ... | Mar. 11 | M | | 43 | 29·03 | ... | | 0 | 43·0 | 7·0 |
| 326 | 49 R. P. L. ... | Feb. 15 | M | 7 | 43 | 55·47 | 2 | 5 | 33 | 41·4 | ... |
| | ... .. .. | Mar. 9 | M | | 43 | 55·14 | 3 | | 33 | 42·2 | .. |
| | ... ... *s.p.* | Sept 13 | M | | 43 | 55·11 | 2 | | 33 | 40·4 | .. |
| 327 | 3034 Lacaille .. | Mar. 7 | M | 7 | 44 | 4·63 | 5 | 153 | 51 | 30·1 | 8·8 |
| 328 | 3031 Lacaille .. | Jan. 16 | M | 7 | 45 | 5·14 | ... | 144 | 22 | 26·1 | 7·9 |
| | ... ... ... | Feb. 29 | R | | 45 | 5·15 | ... | | 22 | 27·2 | 7·6 |
| | ... .. .. | Mar 3 | M | | 45 | 5·11 | .. | | 27 | 27·6 | 7·7 |
| 329 | 3290 Taylor ... ... | Jan. 25 | R | 7 | 46 | 18·09 | 4 | 144 | 27 | 57·2 | 8·3 |
| 330 | 1791 Brisbane ... | Jan. 25 | R | 7 | 46 | 18·63 | 3 | 144 | 24 | 39·2 | 8·3 |
| 331 | .. ... ... | Mar 4 | M | 7 | 46 | 29·42 | ... | 144 | 22 | 26·0 | 8·5 |
| | ... ... .. | „ 5 | M | | 46 | 29·47 | 3 | | 22 | 27·1 | 8·5 |
| 332 | . ... ... | Feb. 18 | R | 7 | 48 | 28·60 | ... | 67 | 46 | 6·8 | 9·2 |
| | ... ... .. | Mar 2 | M | | 48 | 28·62 | .. | | 46 | 6·6 | 9·0 |
| 333 | 3310 Taylor ... . | Mar. 14 | M | 7 | 48 | 32·66 | ... | 149 | 17 | 52·9 | 7·0 |
| 334 | ... . ... | Feb 5 | R | 7 | 48 | 59·01 | 5 | 130 | 26 | 3·1 | 9·5 |
| 335 | .. ... . | Mar 8 | M | 7 | 49 | 29·50 | 5 | 152 | 34 | 55·6 | 6·9 |
| 336 | ... ... .. | Mar. 10 | M | 7 | 50 | 4·76 | 3 | [illegible] | 38 | 25·7 | 8·8 |
| 337 | 3339 Taylor ... ... | Feb 12 | M | 7 | 51 | 50·10 | ... | 144 | 16 | 56·4 | 8·6 |
| 338 | ... . ... | Mar. 1 | M | 7 | 52 | 54·06 | ... | 144 | 41 | 42·0 | 8·7 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension 1864. | | | No. of Wires. | Mean Polar Distance 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 339 | 5 Cancri | Jan. | 22 | M | 7 | 53 | 45·13 | ... | 73 | 10 | 23·2 | 6·0 |
| | | ,, | 23 | M | | 53 | 45·31 | ... | | 10 | 21·0 | 6·0 |
| 340 | 6 Cancri | Jan. | 26 | R | 7 | 55 | 9·63 | ... | 61 | 49 | 39·8 | ... |
| | | Feb. | 2 | R | | 55 | 9·78 | ... | | 49 | 39·9 | ... |
| | | Mar. | 9 | M | | 55 | 9·68 | ... | | 49 | 40·8 | ... |
| | | ,, | 11 | M | | 55 | 9·72 | ... | | 49 | 40·8 | ... |
| 341 | 3373 Taylor | Feb. | 22 | R | 7 | 55 | 13·83 | 5 | 144 | 11 | 51·9 | 8·0 |
| | | Mar. | 3 | M | | 55 | 13·78 | ... | | 11 | 53·1 | 7·8 |
| 342 | | Mar. | 16 | R | 7 | 55 | 20·11 | ... | 128 | 30 | 12·2 | 8·0 |
| 343 | 1855 Brisbane | Mar. | 5 | M | 7 | 55 | 27·93 | ... | 152 | 55 | 47·1 | 6·7 |
| | | ,, | 7 | M | | 55 | 28·21 | 3 | | 55 | 47·2 | 7·0 |
| 344 | 3380 Taylor | Feb. | 13 | M | 7 | 55 | 48·11 | ... | 144 | 10 | 34·0 | 7·6 |
| | | ,, | 22 | R | | 55 | 47·88 | 4 | | 10 | 33·0 | 8·0 |
| | | Mar. | 4 | M | | 55 | 47·90 | 6 | | 10 | 34·4 | 7·9 |
| 345 | | Feb. | 1 | R | 7 | 56 | 31·51 | ... | 129 | 21 | 20·2 | 9·8 |
| 346 | 3154 Lacaille | Jan. | 21 | M | 7 | 58 | 36·62 | 5 | 153 | 11 | 27·7 | 5·5 |
| | | Mar. | 2 | M | | 58 | 36·64 | 5 | | 11 | 29·5 | 5·6 |
| | | ,, | 15 | M | | 58 | 36·93 | 5 | | 11 | 28·9 | 5·7 |
| 347 | 12 Cancri | Jan. | 22 | M | 8 | 1 | 6·38 | ... | 75 | 57 | 59·2 | 6·0 |
| | | ,, | 23 | M | | 1 | 6·58 | ... | | 57 | 58·0 | 6·0 |
| 348 | 3174 Lacaille | Mar. | 8 | M | 8 | 1 | 25·72 | 5 | 155 | 37 | 56·8 | 7·0 |
| | | Apl. | 2 | M | | 1 | 25·65 | ... | | 37 | 55·2 | 7·4 |
| 349 | 15 Argûs | Jan. | 25 | R | 8 | 1 | 45·10 | ... | 113 | 54 | 51·6 | ... |
| | | ,, | 26 | R | | 1 | 45·23 | ... | | 54 | 51·6 | ... |
| | | Feb. | 18 | R | | 1 | 45·13 | 5 | | 54 | 52·3 | ... |
| | | ,, | 22 | R | | 1 | 45·15 | ... | | 54 | 51·5 | ... |
| | | ,, | 23 | R | | 1 | 45·15 | ... | | 54 | 52·0 | ... |
| | | ,, | 26 | R | | 1 | 45·20 | | | 54 | 51·2 | ... |
| | | ,, | 29 | R | | 1 | 45·16 | ... | | 54 | 51·2 | ... |

## *Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 349 | 15 Argûs ... | Mar. | 7 | M | 8 | 1 | 45·08 | ... | 113 | 54 | 51·7 | ... |
| | ... ... ... | ,, | 10 | M | | 1 | 45·17 | ... | | 54 | 51·3 | ... |
| 350 | ... ... ... | Feb. | 12 | M | 8 | 2 | 2·82 | 4 | 113 | 46 | 47·6 | 9·1 |
| 351 | 3200 Lacaille ... | Mar. | 4 | M | 8 | 4 | 47·56 | 5 | 153 | 7 | 25·0 | 6·9 |
| | ... ... ... | ,, | 9 | M | | 4 | 47·70 | 3 | | 7 | 23·6 | 6·9 |
| 352 | ... ... ... | Feb. | 4 | R | 8 | 5 | 19·41 | 4 | 130 | 45 | 22·9 | 8·6 |
| 353 | ... .. ... | Mar. | 17 | R | 8 | 5 | 20·16 | 5 | 77 | 37 | 35·3 | 9·9 |
| | ... ... ... | ,, | 31 | R | | 5 | 20·03 | 3 | | 37 | 34·3 | 10·3 |
| 354 | ... ... ... | Mar. | 16 | R | 8 | 5 | 26·41 | ... | 77 | 24 | 57·5 | 8·9 |
| | ... ... ... | ,, | 22 | R | | 5 | 26·36 | 4 | | 24 | 57·8 | 8·9 |
| | ... ... ... | Apl. | 6 | M | | 5 | 26·52 | ... | | 24 | 57·0 | 9·2 |
| 355 | ... ... ... | Mar. | 16 | R | 8 | 8 | 19·58 | 5 | 77 | 26 | 30·7 | 9·7 |
| | ... ... ... | Apl. | 4 | M | | 8 | 19·78 | 3 | | 26 | 30·7 | 9·7 |
| | ... ... ... | ,, | 5 | M | | 8 | 19·78 | 4 | | 26 | 31·8 | 9·8 |
| 356 | R. Canci Var. 1 .. | Mar. | 10 | M | 8 | 9 | 3·93 | 5 | 77 | 51 | 33·0 | 8·1 |
| | ... ... ... | ,, | 14 | M | | 9 | 3·81 | .. | | 51 | 33·0 | 7·9 |
| 357 | ... ... ... | Mar. | 23 | R | 8 | 9 | 7·36 | ... | 77 | 27 | 27·6 | 9·3 |
| | ... ... ... | Apl. | 1 | M | | 9 | 7·47 | ... | | 27 | 28·0 | 9·3 |
| | ... ... ... | ,, | 2 | M | | 9 | 7·51 | 4 | | 27 | 28·1 | 9·0 |
| 358 | ... ... ... | Feb. | 2 | R | 8 | 9 | 55·34 | 5 | 74 | 16 | 13·7 | 9·7 |
| 359 | ... ... ... | Mar. | 17 | R | 8 | 10 | 28·71 | 5 | 77 | 37 | 47·9 | 9·7 |
| | ... ... ... | ,, | 18 | R | | 10 | 29·02 | 5 | | 37 | 47·4 | 10·0 |
| | ... ... ... | ,, | 31 | R | | 10 | 28·80 | 5 | | 37 | 47·5 | 9·9 |
| 360 | 16224 Lalande ... | Jan. | 25 | R | 8 | 10 | 33·55 | — | 73 | 54 | 11·0 | 8·5 |
| 361 | ... ... ... | Feb | 5 | R | 8 | 12 | 17·13 | 4 | 128 | 43 | 28·1 | 8·8 |
| 362 | ... ... ... | Feb. | 5 | R | 8 | 13 | 45·20 | 4 | 128 | 40 | 53·7 | 8·9 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 363 | ... ... ... | Feb. | 16 | R | 8 | 12 | 57·45 | ... | 130 | 45 | 32·2 | 9·7 |
| 364 | ... ... ... | Feb. | 17 | R | 8 | 13 | 20·72 | 5 | 131 | 41 | 14·0 | 9·5 |
| | ... ... ... | Mar. | 7 | M | | 13 | 20·54 | 3 | | 41 | 13·6 | 8·8 |
| 365 | ... ... ... | Feb. | 13 | M | 8 | 13 | 42·39 | 5 | 133 | 17 | 18·1 | 9·6 |
| 366 | ... ... ... | Mar. | 8 | M | 8 | 14 | 30·56 | ... | 154 | 5 | 5·7 | 9·7 |
| 367 | ... ... ... | Mar. | 15 | M | 8 | 16 | 25·78 | 5 | 77 | 31 | 46·7 | 9·3 |
| 368 | ... ... ... | Mar. | 11 | M | 8 | 17 | 22·71 | ... | 77 | 49 | 9·1 | 8·6 |
| 369 | ... ... ... | Feb. | 15 | M | 8 | 17 | 23·61 | ... | 141 | 15 | 52·4 | 9·0 |
| 370 | VIII 459 W. B. N. ... | Feb | 16 | R | 8 | 20 | 17·12 | 5 | 74 | 27 | 21·8 | 8·3 |
| | ... ... ... | „ | 17 | R | | 20 | 17·06 | ... | | 27 | 21·4 | 9·0 |
| | ... ... ... | „ | 18 | R | | 20 | 17·18 | ... | | 27 | 21·0 | ... |
| 371 | 29 Cancri ... ... | Feb. | 19 | R | 8 | 21 | 2·13 | 4 | 75 | 20 | 30·1 | ... |
| 372 | ... ... ... | Mar. | 10 | M | 8 | 23 | 7·87 | ... | 73 | 25 | 24·8 | 9·0 |
| | ... ... ... | „ | 11 | M | | 23 | 7·72 | ... | | 25 | 24·9 | 9·0 |
| | ... ... ... | „ | 14 | M | | 23 | 7·85 | ... | | 25 | 24·3 | 9·0 |
| 373 | 3620 Taylor ... ... | Feb. | 13 | M | 8 | 23 | 10·60 | ... | 130 | 47 | 47·6 | 8·0 |
| 374 | ... ... ... | April | 2 | M | 8 | 23 | 32·12 | ... | 128 | 38 | 35·7 | 8·6 |
| 375 | 31 Cancri θ ... ... | Dec. | 15 | R | 8 | 23 | 50·24 | ... | 71 | 26 | 55·9 | ... |
| 376 | ... ... ... | Mar. | 1 | M | 8 | 24 | 44·93 | ... | 73 | 45 | 40·9 | 9·6 |
| | ... ... ... | „ | 2 | M | | 24 | 44·75 | ... | | 45 | 40·7 | 9·5 |
| | ... ... ... | „ | 3 | M | | 24 | 44·77 | ... | | 45 | 40·7 | 9·5 |
| | ... ... ... | „ | 4 | M | | 32 | 44·86 | ... | | 45 | 40·4 | 9·5 |
| 377 | 33 Cancri η ... | Jan. | 25 | R | 8 | 24 | 50·41 | ... | 60 | 5 | 59·3 | ... |
| | ... ... ... | Feb. | 22 | R | | 24 | 50·40 | ... | | 5 | 59·5 | ... |
| | ... ... ... | „ | 23 | R | | 24 | 50·41 | ... | | 5 | 59·3 | ... |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 377 | 33 Cancri η ... ... | Feb. | 29 | R | 8 | 24 | 50·41 | ... | 73 | 5 | 59·3 | ... |
| | ... ... ... | Mar. | 5 | M | | 24 | 50·28 | .. | | 5 | 58·9 | ... |
| | ... ... ... | ” | 7 | M | | 24 | 50·47 | ... | | 5 | 59·7 | ... |
| | ... ... ... | ” | 8 | M | | 24 | 50·43 | ... | | 5 | 59·4 | ... |
| | ... ... ... | ” | 9 | M | | 24 | 50·45 | ... | | 5 | 59·7 | ... |
| | ... ... ... | ” | 17 | R | | 24 | 50·34 | ... | | 5 | 59·4 | ... |
| 378 | 3651 Taylor ... ... | Feb. | 5 | R | 8 | 25 | 39·62 | 3 | 103 | 3 | 20·0 | 7·8 |
| 379 | 3652 Taylor ... ... | Feb. | 5 | R | 8 | 25 | 43·64 | 5 | 130 | 2 | 38·3 | 8·3 |
| | ... ... ... | Mar. | 21 | R | | 25 | 43·61 | ... | | 2 | 38·2 | 8·0 |
| 380 | 3393 Lacaille ... | Feb. | 10 | M | 8 | 25 | 56·92 | ... | 149 | 40 | 8·3 | 7·8 |
| | ... ... ... | ” | 15 | M | | 25 | 56·92 | ... | | 40 | 8·9 | 7·9 |
| 381 | ... ... ... | Apl. | 8 | M | 8 | 26 | 25·63 | ... | 130 | 30 | 28·1 | 9·1 |
| 382 | VIII 635 W. B. N. ... | Mar. | 1 | M | 8 | 27 | 38·90 | ... | 73 | 48 | 20·0 | 9·0 |
| | ... ... ... | ” | 2 | M | | 27 | 38·97 | ... | | 48 | 19·2 | 9·0 |
| | ... ... ... | ” | 3 | M | | 27 | 39·06 | ... | | 48 | 18·7 | 9·0 |
| | ... ... ... | ” | 4 | M | | 27 | 38·78 | ... | | 48 | 19·8 | 9·0 |
| 383 | U Cancri Var. 4 ... | Jan. | 26 | R | 8 | 27 | 59·07 | 5 | 70 | 38 | 21·2 | 10·0 |
| | ... ... ... | Feb. | 16 | R | | 27 | 58·78 | ... | | 38 | 19·5 | 9·3 |
| 384 | 3672 Taylor ... ... | Feb. | 17 | R | 8 | 28 | 29·88 | ... | 74 | 13 | 7·4 | 7·0 |
| | ... ... ... | ” | 18 | R | | 28 | 29·82 | ... | | 13 | 8·4 | 7·3 |
| | ... ... ... | ” | 19 | R | | 28 | 30·16 | ... | | 13 | 7·6 | ... |
| 385 | 16890 Lalande ... | Apl. | 4 | M | 8 | 28 | 41·64 | ... | 73 | 12 | 52·4 | 9·0 |
| | ... ... ... | ” | 5 | M | | 28 | 41·65 | ... | | 12 | 52·7 | 8·8 |
| | ... ... .. | ” | 6 | M | | 28 | 41·63 | ... | | 12 | 51·7 | 8·8 |
| 386 | VIII 684 W. B. N. ... | Apl. | 9 | M | 8 | 29 | 1·20 | ... | 70 | 38 | 54·4 | 8·9 |
| 387 | VIII 699 W. B. N. ... | Apl. | 1 | M | 8 | 29 | 31·11 | ... | 70 | 39 | 37·1 | 9·0 |
| 388 | ... ... .. | Feb. | 29 | R | 8 | 31 | 12·43 | ... | 129 | 45 | 24·0 | 9·4 |
| 389 | 3710 Taylor ... .. | Feb. | 23 | R | 8 | 31 | 24·29 | 5 | 141 | 21 | 4·0 | 8·2 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 390 | ... ... .. | Mar. | 15 | M | 8 | 33 | 9·78 | 5 | 129 | 23 | 27·0 | 8·6 |
| 391 | VIII 852 W. B. N. .. | Feb. | 16 | R | 8 | 34 | 1·82 | ... | 74 | 7 | 40·3 | 9·0 |
| | ... ... ... | „ | 17 | R | | 34 | 1·80 | 5 | | 7 | 39·7 | 9·0 |
| | ... ... .. | „ | 22 | R | | 34 | 1·84 | ... | | 7 | 39·1 | 8·8 |
| 392 | ... ... .. | Feb. | 29 | R | 8 | 34 | 39·45 | 5 | 129 | 46 | 12·0 | 9·2 |
| | ... ... .. | Mar. | 7 | M | | 34 | 39·32 | ... | | 46 | 12·1 | 8·9 |
| | ... ... ... | „ | 10 | M | | 34 | 39·57 | ... | | 46 | 11·3 | 8·9 |
| 393 | 3491 Lacaille .. | Apl. | 7 | M | 8 | 36 | 1·13 | 5 | 152 | 21 | 51·3 | 7·9 |
| 394 | S. Cancri Var. 2 .. | Apl. | 8 | M | 8 | 36 | 9·77 | 5 | 70 | 28 | 48·0 | 8·3 |
| 395 | 3767 Taylor ... .. | Mar. | 9 | M | 8 | 36 | 19·67 | 3 | 149 | 50 | 15·2 | 7·6 |
| 396 | 47 Cancri δ ... ... | Dec. | 15 | R | 8 | 36 | 57·18 | ... | 71 | 20 | 55·9 | ... |
| 397 | ... ... .. | Apl. | 6 | M | 8 | 37 | 16·10 | ... | 136 | 8 | 32·1 | 9·2 |
| 398 | 17231 Lalande .. | Feb. | 18 | R | 8 | 37 | 44·09 | ... | 74 | 27 | 41·3 | 8·3 |
| | ... ... ... | „ | 19 | R | | 37 | 44·22 | ... | | 27 | 41·3 | ... |
| | ... ... . | „ | 22 | R | | 37 | 44·10 | ... | | 27 | 41·3 | 7·5 |
| 399 | ... ... .. | Feb. | 24 | R | 8 | 37 | 50·64 | 5 | 136 | 5 | 33·5 | 8·0 |
| | ... ... ... | Apl. | 2 | M | | 37 | 50·51 | ... | | 5 | 33·7 | 8·6 |
| 400 | VIII 977 W. B. N. | Feb. | 10 | M | 8 | 39 | 15·32 | ... | 74 | 48 | 59·3 | 9·5 |
| | ... ... | „ | 15 | M | | 39 | 15·20 | ... | | 49 | 1·7 | 9·0 |
| | ... .. | „ | 16 | R | | 39 | 15·18 | 4 | | 49 | 0·5 | 9·5 |
| 401 | 11 Hydræ ε ... ... | Feb | 26 | R | 8 | 39 | 34·34 | ... | 83 | 5 | 4·4 | ... |
| | ... ... ... | „ | 29 | R | | 39 | 34·29 | ... | | 5 | 4·5 | ... |
| | .. ... . | Mar. | 5 | M | | 39 | 34·16 | ... | | 5 | 3·6 | ... |
| | ... ... ... | „ | 8 | M | | 39 | 44·30 | ... | | 5 | 5·0 | ... |
| | ... . ... | „ | 14 | M | | 39 | 34·20 | ... | | 5 | 4·7 | ... |
| | .. ... ... | „ | 15 | M | | 39 | 34·38 | ... | | 5 | 4·8 | ... |
| 402 | ... ... ... | Feb. | 23 | R | 8 | 40 | 29·34 | ... | 129 | 15 | 34·0 | 8·3 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 403 | VIII 1013 W. B. N. ... | Feb. | 5 | R | 8 | 42 | 21·57 | ... | 74 | 39 | 54·0 | 8·3 |
| | ... ... ... | „ | 11 | M | | 42 | 21·50 | ... | | 39 | 55·1 | 8·3 |
| | ... ... ... | „ | 12 | M | | 42 | 21·36 | ... | | 39 | 54·0 | 8·2 |
| 404 | ... ... ... | Apl. | 4 | M | 8 | 45 | 46·94 | ... | 86 | 27 | 12·6 | 8·7 |
| | ... ... ... | „ | 5 | M | | 45 | 46·91 | ... | | 27 | 11·6 | 8·6 |
| 405 | 60 R. P. L. ... ... | Mar. | 16 | R | 8 | 46 | 22·90 | 5 | 5 | 16 | 53·7 | ... |
| | ... ... .. | „ | 19 | R | | 46 | 23·67 | 3 | | 16 | 53·7 | ... |
| | ... ... ... | „ | 23 | R | | 46 | 23·09 | 3 | | 16 | 54·1 | ... |
| | ... ... ... | Apl. | 12 | R | | 46 | 23·31 | 3 | | 16 | 55·1 | ... |
| | ... ... s.p. | Sept. | 26 | R | | 46 | 22·66 | 5 | | 16 | 53·1 | ... |
| | ... ... s.p. | „ | 29 | R | | 46 | 22·83 | 3 | | 16 | 53·5 | ... |
| 406 | S. Hydræ Var. 3 ... | Mar. | 11 | M | 8 | 46 | 28·34 | ... | 86 | 25 | 13·8 | 8·5 |
| | ... ... ... | Apl. | 9 | M | | 46 | 28·37 | ... | | 25 | 13·0 | 9·0 |
| 407 | 3886 Taylor ... | Feb. | 13 | M | 8 | 48 | 13·86 | ... | 136 | 52 | 52·5 | 7·9 |
| | ... ... ... | Mar. | 10 | M | | 48 | 14·05 | ... | | 52 | 52·8 | 7·9 |
| | ... ... .. | „ | 15 | M | | 48 | 14·14 | ... | | 52 | 53·1 | 7·8 |
| 408 | T. Hydræ Var. 4 ... | Mar. | 22 | R | 8 | 49 | 2·70 | 5 | 98 | 37 | 29·1 | 10·0 |
| | ... ... ... | „ | 30 | R | | 49 | 2·77 | 5 | | 37 | 29·2 | 9·7 |
| 409 | ... ... ... | Mar. | 9 | M | 8 | 49 | 13·13 | 3 | 132 | 54 | 19·8 | 7·7 |
| 410 | .. ... ... | Mar. | 4 | M | 8 | 49 | 20·12 | ... | 132 | 59 | 0·7 | 7·6 |
| 411 | 9 Ursæ Majoris ι ... | Feb. | 22 | R | 8 | 49 | 52·89 | ... | 41 | 25 | 37·0 | ... |
| | ... ... ... | „ | 24 | R | | 49 | 52·88 | ... | | 25 | 38·1 | ... |
| | ... ... ... | „ | 26 | R | | 49 | 52·81 | ... | | 25 | 38·4 | ... |
| | ... ... ... | Mar. | 5 | M | | 49 | 52·77 | 6 | | 25 | 37·2 | ... |
| 412 | ... ... ... | Mar. | 7 | M | 8 | 50 | 15·28 | ... | 132 | 56 | 55·1 | 8·0 |
| 413 | ... ... ... | Feb. | 17 | R | 8 | 50 | 46·62 | 5 | 98 | 44 | 16·8 | 9·8 |
| 414 | VIII 1302 W. B. F. ... | Mar. | 23 | R | 8 | 50 | 49·33 | 4 | 98 | 53 | 46·7 | 9·0 |

## *Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 415 | ... . | Feb. | 16 | R | 8 | 50 | 58·88 | 5 | 98 | 35 | 9·3 | 9·1 |
| | .. .. ... | Mar. | 17 | R | | 50 | 58·75 | 5 | | 35 | 9·2 | 9·2 |
| 416 | 65 Cancri α ... .. | Mar. | 18 | R | 8 | 51 | 2·70 | .. | 77 | 37 | 5·9 | ... |
| | .. ... .. | „ | 19 | R | | 51 | 2·70 | 5 | | 37 | 6·2 | ... |
| 417 | ... .. .. | Mar. | 8 | M | 8 | 54 | 9·76 | 5 | 142 | 41 | 8·8 | 9·1 |
| | ... ... .. | „ | 16 | R | | 54 | 9·96 | ... | | 41 | 8·8 | 9·5 |
| 418 | ... ... ... | Apl. | 13 | M | 8 | 54 | 20·33 | ... | 130 | 34 | 53·3 | 8·4 |
| 419 | 3941 Taylor ... .. | Feb. | 5 | R | 8 | 54 | 59·75 | 5 | 144 | 6 | 23·4 | 8·5 |
| 420 | ... ... ... | Apl. | 7 | M | 8 | 56 | 59·39 | 3 | 146 | 55 | 44·0 | 8·1 |
| 421 | ... ... .. | Feb. | 26 | R | 8 | 56 | 43·30 | ... | 129 | 18 | 12·4 | 9·5 |
| 422 | ... ... .. | Mar. | 30 | R | 8 | 58 | 5·43 | .. | 146 | 49 | 41·4 | ... |
| 423 | ... ... .. | Apl. | 9 | M | 8 | 58 | 9·40 | .. | 146 | 18 | 23·9 | 9·0 |
| 424 | ... ... ... | Feb. | 24 | R | 8 | 59 | 6·08 | ... | 145 | 38 | 9·8 | 8·7 |
| | ... ... .. | Mar. | 14 | M | | 59 | 6·09 | .. | | 38 | 9·2 | 9·0 |
| | ... ... ... | Apl. | 8 | M | | 59 | 5·94 | 5 | | 38 | 8·7 | 9·1 |
| 425 | 76 Cancri κ ... | Jan. | 23 | M | 9 | 0 | 22·92 | ... | 78 | 47 | 13·2 | ... |
| | ... ... ... | Mar. | 18 | R | | 0 | 22·69 | ... | | 47 | 12·4 | ... |
| | ... ... . | „ | 19 | R | | 0 | 22·72 | .. | | 47 | 11·4 | ... |
| 426 | ... ... ... | Mar. | 9 | M | 9 | 1 | 3·47 | 3 | 150 | 1 | 31·3 | 8·3 |
| | ... ... .. | „ | 11 | M | | 1 | 3·54 | 5 | | 1 | 32·3 | 8·1 |
| 427 | ... ... ... | Mar. | 17 | R | 9 | 1 | 50·14 | ... | 128 | 57 | 10·7 | 8·0 |
| 428 | 3705 Lacaille ... | Apl. | 14 | M | 9 | 2 | 13·97 | 3 | 151 | 17 | 3·1 | 7·1 |
| | ... ... .. | „ | 15 | M | | 2 | 13·92 | 5 | | 17 | 4·0 | 7·2 |
| 429 | ... ... .. | Feb. | 29 | R | 9 | 2 | 15·75 | 2 | 71 | 26 | 28·1 | 10·5 |
| 430 | ... ... ... | Apl. | 13 | M | 9 | 4 | 28·60 | ... | 130 | 29 | 40·7 | 8·7 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension. 1864. h. | m. | s. | No. of Wires. | Mean Polar Distance. 1864. ° | ′ | ″ | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 431 | 3713 Lacaille .. | Mar. 16 | R | 9 | 4 | 34·83 | ... | 143 | 49 | 12·4 | 8·8 |
| 432 | 4021 Taylor ... ... | Feb. 24 | R | 9 | 5 | 31·07 | 5 | 138 | 44 | 10·7 | 7·0 |
| | ... ... ... | Mar. 15 | M | | 5 | 31·21 | 5 | | 44 | 12·2 | 7·1 |
| 433 | ... ... ... | Apl. 9 | M | 9 | 6 | 26·92 | 3 | 142 | 29 | 27·7 | 7·7 |
| 434 | ... ... ... | Feb. 24 | R | 9 | 6 | 30·83 | 4 | 138 | 41 | 30·2 | 5·8 |
| 435 | ... ... ... | Mar. 2 | M | 9 | 8 | 14·45 | 3 | 148 | 14 | 17·0 | 8·6 |
| | ... ... ... | ,, 3 | M | | 8 | 14·11 | 3 | | 14 | 13·7 | 8·5 |
| | ... ... .. | ,, 14 | M | | 8 | 14·18 | ... | | 14 | 14·5 | 8·7 |
| 436 | 83 Cancri ... ... | Mar. 11 | M | 9 | 11 | 23·15 | ... | 71 | 43 | 13·8 | ... |
| | ... ... ... | ,, 17 | R | | 11 | 23·10 | ... | | 43 | 13·8 | ... |
| | ... ... ... | ,, 21 | R | | 11 | 23·00 | ... | | 43 | 13·2 | ... |
| | ... ... ... | Apl. 12 | M | | 11 | 23·13 | ... | | 43 | 13·0 | ... |
| 437 | ... ... ... | Feb. 17 | R | 9 | 11 | 48·62 | ... | 130 | 45 | 8·5 | 8·6 |
| | ... ... ... | ,, 22 | R | | 11 | 48·64 | ... | | 45 | 7·8 | 7·8 |
| | ... ... ... | Apl. 13 | M | | 11 | 48·59 | ... | | 45 | 7·1 | 8·0 |
| | ... ... ... | ,, 14 | M | | 11 | 48·63 | ... | | 45 | 8·0 | 8·2 |
| 438 | ... ... ... | Mar. 10 | M | 9 | 13 | 3·38 | ... | 72 | 17 | 58·1 | 7·9 |
| | ... ... ... | ,, 18 | R | | 13 | 3·11 | .. | | 17 | 57·0 | ... |
| | ... ... ... | Apl. 5 | M | | 13 | 3·30 | .. | | 17 | 57·4 | 7·9 |
| 439 | ι Argûs ... .. | Feb. 26 | R | 9 | 13 | 27·00 | | 148 | 42 | 23·0 | .. |
| | ... ... .. | Mar. 30 | R | | 13 | 26·96 | . | | 42 | 21·8 | ... |
| | ... ... .. | Apl. 15 | M | | 13 | 27·22 | 3 | | 42 | 23·2 | ... |
| 440 | ... ... .. | Apl. 1 | M | 9 | 14 | 37·95 | 5 | 24 | 50 | 29·1 | 8·6 |
| | ... ... ... | ,, 2 | M | | 14 | 37·88 | . | | 50 | 29·4 | 8·6 |
| 441 | ... .. | Mar. 22 | R | 9 | 15 | 15·46 | 5 | 143 | 48 | 40·2 | 9·0 |
| 442 | .. ... | Mar. 23 | R | 9 | 15 | 54·93 | 5 | 25 | 4 | [illegible] | 9·0 |
| 443 | ... . .. | Mar. 1 | M | 9 | 16 | 6·17 | 4 | 140 | 7 | 34·8 | 9·0 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 444 | 9681 O. A. N. ... | Feb. | 17 | R | 9 | 17 | 37·18 | 5 | 25 | 3 | 44·5 | 9·1 |
| | ... ... ... | Mar. | 23 | R | | 17 | 37·40 | 5 | | 3 | 41·9 | 9·2 |
| 445 | ... ... .. | Feb. | 23 | R | 9 | 19 | 29·04 | ... | 75 | 6 | 30·3 | 7·7 |
| | ... ... .. | Mar. | 2 | M | | 19 | 29·11 | ... | | 6 | 31·8 | 7·6 |
| 446 | 30 Hydræ α Var. 1 ... | Mar. | 4 | M | 9 | 20 | 54·17 | .. | 98 | 4 | 15·8 | ... |
| | ... ... ... | ,, | 7 | M | | 20 | 54·16 | ... | | 4 | 15·8 | ... |
| | ... ... ... | ,, | 14 | M | | 20 | 54·23 | ... | | 4 | 15·8 | ... |
| | ... ... ... | ,, | 15 | M | | 20 | 54·17 | ... | | 4 | 15·9 | ... |
| | ... ... .. | ,, | 16 | R | | 20 | 54·26 | ... | | 4 | 15·4 | ... |
| | ... ... .. | Apl. | 15 | M | | 20 | 54·28 | ... | | 4 | 14·0 | ... |
| 447 | 3853 Lacaille ... | Mar. | 3 | M | 9 | 22 | 31·95 | ... | 131 | 59 | 15·6 | 7·9 |
| | ... ... ... | ,, | 22 | R | | 22 | 32·10 | ... | | 59 | 14·9 | 8·6 |
| | ... ... ... | Apl. | 14 | M | | 22 | 31·99 | ... | | 59 | 16·8 | 7·8 |
| 448 | 25 Ursæ Majoris θ ... | Feb. | 24 | R | 9 | 23 | 44·63 | ... | 37 | 42 | 19·0 | ... |
| | ... ... ... | Mar. | 17 | R | | 23 | 44·48 | ... | | 42 | 18·8 | ... |
| 449 | 3886 Lacaille .. | Mar. | 19 | R | 9 | 24 | 43·28 | ... | 141 | 40 | 48·5 | 7·8 |
| 450 | 3887 Lacaille .. | Mar. | 21 | R | 9 | 24 | 54·96 | ... | 149 | 0 | 31·6 | 7·8 |
| | ... ... .. | Apl | 6 | M | | 24 | 55·11 | ... | | 0 | 31·7 | 8·3 |
| 451 | ... ... .. | Mar. | 9 | M | 9 | 26 | 42·23 | 5 | 145 | 2 | 26·6 | 8·8 |
| | ... ... .. | ,, | 30 | R | | 26 | 42·16 | ... | | 2 | 27·1 | 9·8 |
| | ... ... .. | Apl. | 4 | M | | 26 | 42·17 | 3 | | 2 | 26·2 | 8·8 |
| 452 | ... ... ... | Mar. | 31 | R | 9 | 26 | 55·57 | 5 | 144 | 58 | 8·4 | 9·0 |
| 453 | .. ... .. | Apl. | 7 | M | 9 | 27 | 58·54 | 5 | 128 | 45 | 53·6 | 8·3 |
| 454 | 4226 Taylor .. ... | Mar. | 8 | M | 9 | 28 | 37·63 | 5 | 140 | 29 | 33·0 | 7·0 |
| 455 | ... ... .. | Feb. | 23 | R | 9 | 28 | 54·58 | .. | 128 | 46 | 55·4 | 8·2 |
| 456 | .. ... .. | Feb. | 21 | R | 9 | 29 | 1·22 | ... | 128 | 49 | 33·6 | 6·0 |
| | .. ... .. | Mar. | 15 | M | | 29 | 1·42 | 4 | | 49 | 34·2 | 8·5 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 457 | 4259 Taylor ... ... | Mar. | 2 | M | 9 | 31 | 57·68 | 4 | 138 | 44 | 45·5 | 5·3 |
| 458 | ... ... ... | Mar. | 1 | M | 9 | 32 | 27·56 | ... | 129 | 53 | 54·2 | 8·6 |
| | ... ... ... | ,, | 18 | R | | 32 | 27·62 | ... | | 53 | 53·5 | 9·2 |
| | ... ... ... | Apl. | 1 | M | | 32 | 27·71 | ... | | 53 | 53·4 | 8·5 |
| 459 | ... ... ... | Mar. | 17 | R | 9 | 32 | 54·20 | 5 | 129 | 47 | 34·1 | 7·8 |
| 460 | 14 Leonis ο ... ... | Jan. | 25 | R | 9 | 33 | 53·34 | ... | 79 | 29 | 28·4 | ... |
| | ... ... ... | Apl. | 16 | R | | 33 | 53·36 | ... | | 29 | 20·8 | ... |
| 461 | ... ... ... | Mar. | 3 | M | 9 | 34 | 43·83 | ... | 130 | 34 | 39·5 | 9·0 |
| | ... ... ... | ,, | 7 | M | | 34 | 43·92 | 3 | | 34 | 41·4 | 8·7 |
| | ... ... ... | ,, | 22 | R | | 34 | 44·01 | ... | | 34 | 37·2 | 9·0 |
| 462 | ... ... ... | Apl. | 8 | M | 9 | 35 | 33·97 | 5 | 151 | 56 | 22·6 | 8·5 |
| 463 | 17 Leonis ε ... ... | Feb. | 10 | R | 9 | 38 | 7·56 | ... | 65 | 36 | 5·9 | ... |
| | ... ... ... | ,, | 23 | R | | 38 | 7·56 | ... | | 36 | 6·0 | ... |
| | ... ... ... | ,, | 24 | R | | 38 | 7·56 | ... | | 36 | 6·6 | ... |
| | ... ... ... | Mar. | 8 | M | | 38 | 7·57 | ... | | 36 | 7·7 | ... |
| | ... ... ... | ,, | 17 | R | | 38 | 7·45 | ... | | 36 | 5·9 | ... |
| | ... ... ... | ,, | 19 | R | | 38 | 7·54 | ... | | 36 | 5·9 | ... |
| | ... ... ... | ,, | 21 | R | | 38 | 7·50 | ... | | 36 | 5·0 | ... |
| | ... ... ... | Apl. | 2 | M | | 38 | 7·61 | ... | | 36 | 6·1 | ... |
| 464 | R Leonis Var. 1 ... | Mar. | 31 | R | 9 | 40 | 14·29 | ... | 77 | 56 | 32·5 | 6·0 |
| | ... ... ... | Apl. | 4 | M | | 40 | 14·49 | 5 | | 56 | 32·8 | 6·0 |
| | ... ... ... | ,, | 5 | M | | 40 | 14·38 | ... | | 56 | 32·4 | 6·0 |
| | ... ... ... | ,, | 6 | M | | 40 | 14·45 | ... | | 56 | 31·9 | 6·0 |
| | ... ... ... | ,, | 7 | M | | 40 | 14·48 | ... | | 56 | 32·1 | 6·0 |
| 465 | ... ... ... | Jan. | 26 | R | 9 | 41 | 50·08 | 5 | 130 | 49 | 15·8 | 8·7 |
| 466 | ... ... ... | Mar. | 23 | R | 9 | 42 | 42·08 | ... | 130 | 47 | 49·2 | 9·0 |
| 467 | ... ... ... | Mar. | 2 | M | 9 | 43 | 27·04 | ... | 143 | 56 | 51·3 | 9·0 |
| | ... ... ... | ,, | 22 | R | | 43 | 27·06 | ... | | 56 | 49·5 | 8·9 |
| | ... ... ... | Apl. | 1 | M | | 43 | 27·16 | 5 | | 56 | 50·4 | 9·0 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h | m. | s | | ° | ′ | ″ | |
| 468 | ... . ... | Mar. | 9 | M | 9 | 43 | 34·18 | ... | 143 | 45 | 55·2 | 7·7 |
| 469 | .. .. .. | Mar. | 21 | R | 9 | 45 | 55·93 | 6 | 129 | 2 | 51·8 | 8·8 |
| 470 | 70 R. P. L. ... .. | Mar | 1 | M | 9 | 46 | 15·43 | 3 | 5 | 25 | 49·5 | ... |
| | .. ... | ,, | 14 | M | | 46 | 17·64 | 3 | | 25 | 49·8 | ... |
| | ... ... . | Apl. | 2 | M | | 46 | 18·06 | 3 | | 25 | 48·3 | |
| 471 | ... ... .. | Mar. | 3 | M | 9 | 46 | 26·57 | .. | 129 | 6 | 56·2 | 9·4 |
| | ... ... ... | ,, | 7 | M | | 46 | 26·51 | 3 | | 6 | 56·5 | 9·0 |
| 472 | IX. 1057 W. B. N. ... | Feb. | 17 | R | 9 | 49 | 44·66 | ... | 85 | 6 | 41·9 | 7·2 |
| | ... ... .. | ,, | 18 | R | | 49 | 44·66 | ... | | 6 | 42·3 | 7·3 |
| | ... ... .. | ,, | 23 | R | | 49 | 44·68 | ... | | 6 | 42·0 | 7·3 |
| 473 | 4402 Taylor .. .. | Apl. | 5 | M | 9 | 49 | 53·39 | ... | 129 | 47 | 30·3 | 7·9 |
| | ... ... ... | ,, | 6 | M | | 49 | 53·41 | 5 | | 47 | 29·3 | 7·6 |
| | ... ... .. | ,, | 12 | M | | 49 | 53·41 | ... | | 47 | 30·4 | 7·3 |
| 474 | 29 Leonis ν ... ... | Jan. | 25 | R | 9 | 53 | 1·48 | .. | 81 | 18 | 17·0 | ... |
| | ... ... ... | Feb. | 19 | R | | 53 | 1·47 | ... | | 18 | 17·5 | ... |
| | ... ... ... | ,, | 22 | R | | 53 | 1·45 | ... | | 18 | 16·8 | ... |
| | ... ... ... | ,, | 24 | R | | 53 | 1·44 | ... | | 18 | 18·0 | ... |
| | ... ... ... | ,, | 25 | R | | 53 | 1·46 | ... | | 18 | 16·1 | ... |
| | ... ... . | Mar. | 11 | M | | 53 | 1·42 | ... | | 18 | 18·1 | ... |
| | ... ... .. | ,, | 19 | R | | 53 | 1·54 | ... | | 18 | 17·8 | ... |
| | ... ... ... | Apl. | 4 | M | | 53 | 1·47 | ... | | 18 | 15·6 | ... |
| | ... ... .. | ,, | 14 | M | | 53 | 1·52 | ... | | 18 | 17·8 | ... |
| | ... ... .. | ,, | 15 | M | | 53 | 1·30 | ... | | 18 | 17·6 | ... |
| 475 | ... .. .. | Apl. | 9 | M | 9 | 53 | 52·92 | 4 | 153 | 6 | 45·9 | 9·3 |
| 476 | 4445 Taylor ... .. | Feb. | 26 | R | 9 | 54 | 43·15 | 3 | 147 | 28 | 41·9 | 8·7 |
| | ... ... ... | Mar | 2 | M | | 54 | 43·18 | ... | | 28 | 40·8 | 7·9 |
| | ... ... ... | ,, | 9 | M | | 54 | 43·09 | .. | | 28 | 40·6 | 7·7 |
| | . ... ... | Apl. | 8 | M | | 54 | 43·33 | 5 | | 28 | 40·0 | 7·9 |
| 477 | ... ... ... | Mar. | 7 | M | 9 | 56 | 26·50 | ... | 143 | 3 | 50·4 | 8·3 |
| 478 | ... ... .. | Feb. | 29 | R | 9 | 57 | 7·36 | 5 | 129 | 56 | 40·4 | 9·0 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension. 1864. h. | m. | s. | No. of Wires. | Mean Polar Distance. 1864. ° | ′ | ″ | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 479 | 4476 Taylor ... ... | Mar. 31 | R | 9 | 57 | 51·23 | 4 | 145 | 36 | 4·3 | 8·5 |
| 480 | ... ... ... | Apl. 13 | M | 9 | 58 | 25·93 | ... | 150 | 38 | 57·8 | 8·5 |
| | ... ... ... | „ 26 | R | | 58 | 26·02 | 5 | | 38 | 55·0 | 9·0 |
| 481 | 14 Sextantis ... .. | Feb. 22 | R | 9 | 59 | 40·60 | 5 | 83 | 43 | 36·5 | ... |
| 482 | 31 Leonis A ... ... | Mar. 19 | R | 10 | 0 | 41·11 | ... | 79 | 20 | 15·0 | ... |
| 483 | 32 Leonis α (*Regulus*). | Mar. 1 | M | 10 | 1 | 7·57 | ... | 77 | 22 | 10·4 | ... |
| | ... ... ... | „ 10 | M | | 1 | 7·60 | ... | | 22 | 10·3 | ... |
| | ... ... .. | „ 16 | R | | 1 | 7·53 | ... | | 22 | 10·0 | .. |
| | ... ... ... | „ 23 | R | | 1 | 7·40 | ... | | 22 | 11·1 | ... |
| | ... ... ... | „ 30 | R | | 1 | 7·51 | ... | | 22 | 10·6 | ... |
| | ... ... ... | Apl. 1 | M | | 1 | 7·64 | ... | | 22 | 10·2 | ... |
| | ... ... ... | „ 2 | M | | 1 | 7·52 | ... | | 22 | 10·5 | .. |
| | ... ... .. | „ 4 | M | | 1 | 7·61 | ... | | 22 | 11·0 | ... |
| | ... ... ... | „ 5 | M | | 1 | 7·52 | ... | | 22 | 10·4 | ... |
| | ... ... ... | „ 6 | M | | 1 | 7·54 | ... | | 22 | 9·9 | ... |
| | ... ... ... | „ 7 | M | | 1 | 7·52 | ... | | 22 | 11·3 | ... |
| | ... ... ... | „ 12 | M | | 1 | 7·56 | ... | | 22 | 10·8 | ... |
| | ... ... ... | „ 14 | M | | 1 | 7·56 | 5 | | 22 | 10·3 | ... |
| | ... ... ... | „ 15 | M | | 1 | 7·61 | ... | | 22 | 10·5 | ... |
| 484 | ... ... ... | Feb. 29 | R | 10 | 2 | 46·61 | 5 | 129 | 57 | 38·4 | 9·0 |
| 485 | 4538 Taylor ... .. | Feb. 26 | R | 10 | 6 | 9·49 | ... | 129 | 19 | 26·2 | 8·3 |
| | ... ... .. | Mar. 11 | M | | 6 | 9·32 | .. | | 19 | 28·1 | 7·1 |
| | ... ... ... | Apl. 8 | M | | 6 | 9·45 | 4 | | 19 | 26·9 | 7·0 |
| 486 | ... ... .. | Feb. 25 | R | 10 | 9 | 1·48 | 5 | 139 | 51 | 41·4 | ... |
| | ... ... .. | Mar. 14 | M | | 9 | 1·44 | 3 | | 51 | 42·2 | 9·1 |
| 487 | 72 B. P. L. ... .. | Mar. 31 | R | 10 | 9 | 20·53 | 3 | 5 | 3 | 38·8 | ... |
| | ... ... ... | Apl. 15 | M | | 9 | 20·83 | 3 | | 3 | 39·1 | ... |
| | ... ... ... | „ 16 | R | | 9 | 20·35 | 3 | | 3 | 39·0 | ... |
| | ... ... *s.p.* | Oct. 3 | M | | 9 | 21·11 | 3 | | 3 | 35·8 | ... |
| | ... ... *s.p.* | Nov. 2 | M | | 9 | 20·78 | 2 | | 3 | 38·5 | ... |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 488 | 4577 Taylor ... .. | Mar. | 30 | R | 10 | 9 | 47·70 | ... | 128 | 36 | 58·9 | 8·8 |
| | ... ... .. | Apl. | 4 | M | | 9 | 47·77 | ... | | 36 | 57·1 | 8·7 |
| 489 | ... . .. | Apl. | 13 | M | 10 | 10 | 15·97 | ... | 139 | 51 | 9·0 | 9·0 |
| 490 | 41 Leonis $\gamma^1$ .. | Mar. | 3 | M | 10 | 12 | 28·06 | ... | 60 | 28 | 20·5 | ... |
| | ... ... .. | ,, | 15 | M | | 12 | 28·21 | . | | 28 | 20·2 | ... |
| | ... ... .. | ,, | 16 | R | | 12 | 28·15 | ... | | 28 | 19·4 | ... |
| | ... ... .. | ,, | 17 | R | | 12 | 28·14 | ... | | 28 | 20·2 | ... |
| | ... ... .. | ,, | 18 | R | | 12 | 28·20 | .. | | 28 | 20·4 | ... |
| | ... ... .. | ,, | 22 | R | | 12 | 28·21 | ... | | 28 | 19·3 | ... |
| | ... ... ... | Apl. | 1 | M | | 12 | 28·13 | ... | | 28 | 20·2 | ... |
| | ... .. ... | ,, | 2 | M | | 12 | 28·22 | ... | | 28 | 20·2 | ... |
| | ... ... ... | ,, | 7 | M | | 12 | 28·12 | ... | | 28 | 19·6 | ... |
| | ... ... ... | ,, | 14 | M | | 12 | 28·18 | 5 | | 28 | 19·8 | ... |
| | ... .. ... | ,, | 18 | R | | 12 | 28·19 | 5 | | 28 | 20·0 | ... |
| | ... ... ... | ,, | 20 | R | | 12 | 28·27 | ... | | 28 | 19·4 | ... |
| 491 | 43 Leonis . .. | Jan. | 25 | R | 10 | 15 | 53·31 | ... | 82 | 46 | 4·5 | ... |
| | ... ... . | ,, | 26 | R | | 15 | 53·45 | ... | | 46 | 5·7 | ... |
| 492 | ... .. ... | Mar. | 31 | R | 10 | 16 | 8·21 | 5 | 75 | 24 | 31·4 | 9·0 |
| | ... ... ... | Apl. | 6 | M | | 16 | 8·18 | ... | | 24 | 29·7 | 9·3 |
| 493 | . ... .. | Feb. | 26 | R | 10 | 16 | 11·74 | 5 | 129 | 16 | 16·4 | 9·0 |
| | ... .. ... | Mar. | 7 | M | | 16 | 11·83 | ... | | 16 | 16·6 | 8·8 |
| 494 | 4653 Taylor .. .. | Mar. | 8 | M | 10 | 18 | 1·94 | 5 | 151 | 23 | 10·5 | 8·4 |
| 495 | 45 Leonis ... .. | Jan. | 25 | R | 10 | 20 | 27·81 | 4 | 79 | 32 | 43·1 | ... |
| | .. ... .. | ,, | 26 | R | | 20 | 27·96 | 5 | | 32 | 44·1 | ... |
| | ... ... ... | Apl. | 16 | R | | 20 | 27·83 | 5 | | 32 | 45·1 | ... |
| 496 | .. ... . | Apl. | 13 | M | 10 | 21 | 55·82 | ... | 146 | 59 | 1·4 | 9·0 |
| 497 | 30 Sextantis .. ... | Mar. | 21 | R | 10 | 23 | 20·43 | 5 | 89 | 56 | 25·8 | ... |
| 498 | ... .. .. | Mar. | 16 | R | 10 | 23 | 22·02 | 4 | 76 | 5 | 16·9 | 10·0 |
| | . . .. | ,, | 19 | R | | 23 | 22·37 | 3 | | 5 | 18·5 | ... |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 499 | 47 Leonis ρ .. | Mar. | 18 | R | 10 | 25 | 38·88 | ... | 79 | 59 | 41·2 | ... |
| | .. ... .. | ,, | 22 | R | | 25 | 38·85 | ... | | 59 | 41·1 | ... |
| | ... .. .. | Apl. | 2 | M | | 25 | 38·88 | .. | | 59 | 41·4 | ... |
| | ... ... .. | ,, | 4 | M | | 25 | 38·81 | ... | | 59 | 42·1 | ... |
| | ... ... | ,, | 7 | M | | 25 | 38·92 | ... | | 59 | 41·7 | ... |
| | ... ... ... | ,, | 8 | M | | 25 | 38·87 | . | | 59 | 40·6 | . |
| | ... ... .. | ,, | 9 | M | | 25 | 38·83 | | | 59 | 41·3 | ... |
| | ... ... ... | ,, | 14 | M | | 25 | 38·86 | .. | | 59 | 41·1 | .. |
| | ... ... ... | ,, | 16 | R | | 25 | 38·80 | 6 | | 59 | 41·5 | . |
| | ... ... .. | ,, | 20 | R | | 25 | 38·89 | .. | | 59 | 41·6 | ... |
| 500 | ... ... ... | Apl. | 13 | M | 10 | 29 | 12·38 | 3 | 147 | 54 | 36·6 | 9·2 |
| 501 | ... ... ... | Apl. | 16 | R | 10 | 34 | 52·10 | 5 | 139 | 16 | 37·9 | 9·7 |
| | ... ... ... | ,, | 25 | R | | 34 | 52·19 | 5 | | 16 | 38·9 | 9·5 |
| 502 | ... ... ... | Apl. | 26 | R | 10 | 35 | 22·25 | ... | 137 | 19 | 31·7 | 9·2 |
| 503 | 36 Sextantis ... ... | Mar. | 21 | R | 10 | 38 | 8·91 | ... | 86 | 47 | 51·7 | .. |
| 504 | ... ... ... | Apl. | 4 | M | 10 | 38 | 46·97 | ... | 144 | 50 | 22·2 | 8·2 |
| | ... ... ... | ,, | 13 | M | | 38 | 46·93 | ... | | 50 | 19·8 | 7·9 |
| | ... ... ... | ,, | 15 | M | | 38 | 47·32 | 3 | | 50 | 21·3 | 7·9 |
| 505 | η Argus Var 1 ... | Feb. | 24 | R | 10 | 39 | 47·52 | ... | 148 | 58 | 13·4 | ... |
| | ... ... ... | Apl. | 2 | M | | 39 | 47·48 | ... | | 58 | 14·4 | ... |
| | ... ... .. | ,, | 20 | R | | 39 | 47·35 | ... | | 58 | 12·3 | .. |
| 506 | ... ... ... | Mar. | 15 | M | 10 | 41 | 25·52 | ... | 146 | 23 | 11·9 | 9·0 |
| 507 | 53 Leonis l ... ... | Mar. | 16 | R | 10 | 42 | 6·37 | . | 78 | 44 | 9·9 | . |
| | ... ... ... | ,, | 18 | R | | 42 | 6·37 | ... | | 44 | 10·8 | ... |
| | ... ... ... | ,, | 22 | R | | 42 | 6·35 | ... | | 44 | 10·5 | ... |
| | ... ... ... | Apl. | 1 | M | | 42 | 6·36 | .. | | 44 | 9·9 | ... |
| | ... ... .. | ,, | 6 | M | | 42 | 6·27 | ... | | 44 | 10·5 | ... |
| | .. .. ... | ,, | 7 | M | | 42 | 6·48 | ... | | 44 | 10·5 | ... |
| | ... ... .. | ,, | 8 | M | | 42 | 6·26 | .. | | 44 | 9·3 | .. |
| | ... ... ... | ,, | 9 | M | | 42 | 6·38 | .. | | 44 | 10·7 | ... |
| | ... ... ... | ,, | 12 | M | | 42 | 6·31 | ... | | 44 | 10·4 | ... |

## *Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | | ° | ' | " | |
| 507 | 53 Leonis *l* ... .. | Apl. 19 | R | 10 | 42 | 6·31 | ... | 78 | 44 | 10·4 | ... |
| | ... .. | May. 10 | M | | 42 | 6·39 | ... | | 44 | 10·3 | ... |
| 508 | 4886 Taylor .. | Mar. 4 | M | 10 | 42 | 47·47 | ... | 137 | 2 | 0·2 | 7·0 |
| 509 | ... ... .. | Apl. 14 | M | 10 | 45 | 4·05 | 3 | 141 | 45 | 5·6 | 7·9 |
| | ... .. | „ 26 | R | | 45 | 4·19 | 4 | | 45 | 4·6 | 8·2 |
| | ... .. . | „ 28 | R | | 45 | 4·16 | 5 | | 45 | 3·7 | 8·3 |
| 510 | ... ... .. | Apl. 26 | R | 10 | 46 | 2·79 | 5 | 141 | 39 | 51·2 | 8·4 |
| 511 | ... ... .. | Apl. 20 | R | 10 | 47 | 52·85 | ... | 150 | 5 | 33·6 | 9·0 |
| 512 | ... ... . | Apl. 5 | M | 10 | 47 | 59·18 | 5 | 129 | 29 | 12·6 | 8·9 |
| 513 | ... ... .. | Mar. 22 | R | 10 | 50 | 16·20 | 5 | 144 | 30 | 30·0 | 9·0 |
| 514 | 4255 Taylor ... .. | Apl. 13 | M | 10 | 50 | 40·47 | .. | 147 | 19 | 36·3 | 6·8 |
| 515 | ... ... .. | Mar. 23 | R | 10 | 52 | 18·91 | . | 143 | 36 | 15·0 | 9·0 |
| 516 | ... ... . | Apl. 4 | M | 10 | 52 | 52·73 | 6 | 130 | 32 | 46·6 | 8·3 |
| | ... .. | May 10 | M | | 52 | 52·75 | ... | | 32 | 46·4 | 8·8 |
| 517 | 59 Leonis *c* .. | Feb. 22 | R | 10 | 53 | 41·72 | .. | 83 | 10 | 6·6 | ... |
| | ... ... | „ 23 | R | | 53 | 41·73 | ... | | 10 | 7·2 | ... |
| 518 | 61 Leonis *p'* | Jan 16 | R | 10 | 54 | 53·58 | ... | 91 | 45 | 12·8 | ... |
| 519 | 50 Ursæ Majoris α .. | Apl. 15 | M | 10 | 55 | 18·59 | 4 | 27 | 30 | 56·1 | .. |
| | ... ... .. | „ 18 | R | | 55 | 18·49 | .. | | 30 | 59·2 | ... |
| | .. ... .. | „ 20 | R | | 55 | 18·58 | 4 | | 30 | 56·3 | . |
| 520 | ... ... .. | May 13 | M | 10 | 56 | 59·48 | . | 145 | 32 | 27·4 | 8·2 |
| 521 | .. ... ... | Apl. 25 | R | 10 | 57 | 1·96 | 5 | 145 | 25 | 40·0 | 9·3 |
| 522 | 4576 Lacaille .. | Mar. 4 | M | 10 | 57 | 45·82 | 4 | 129 | 34 | 32·7 | 8·0 |
| | .. .. ... | May 12 | M | | 57 | 45·88 | ... | | 34 | 33·4 | 7·7 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 523 | 63 Leonis χ .. ... | Feb. | 24 | R | 10 | 58 | 0·02 | ... | 81 | 55 | 47·2 | .. |
| | ... ... ... | Mar. | 19 | R | | 58 | 0·07 | .. | | 55 | 47·0 | ... |
| | ... ... ... | „ | 21 | R | | 58 | 0·17 | ... | | 55 | 45·8 | .. |
| | ... ... ... | „ | 23 | R | | 58 | 0·12 | 4 | | 55 | 46·5 | .. |
| | ... ... ... | „ | 30 | R | | 57 | 59·97 | ... | | 55 | 46·3 | ... |
| | ... ... ... | „ | 31 | R | | 57 | 59·99 | ... | | 55 | 46·5 | ... |
| | ... ... ... | Apl. | 5 | M | | 58 | 0·04 | ... | | 55 | 47·1 | ... |
| | ... ... ... | „ | 8 | M | | 57 | 59·95 | ... | | 55 | 45·7 | ... |
| | ... ... ... | „ | 9 | M | | 58 | 0·01 | .. | | 55 | 46·7 | .. |
| | ... ... .. | „ | 13 | M | | 57 | 59·95 | ... | | 55 | 46·3 | ... |
| | ... ... ... | May | 10 | M | | 58 | 0·09 | 4 | | 55 | 46·6 | .. |
| 524 | ... ... ... | Apl. | 27 | R | 10 | 58 | 11·95 | ... | 140 | 59 | 14·9 | 9·2 |
| 525 | 65 Leonis $p^3$ ... .. | Apl. | 18 | R | 10 | 59 | 57·96 | 5 | 87 | 18 | 29·9 | .. |
| 526 | ... ... ... | Apl. | 29 | R | 11 | 0 | 36·53 | 5 | 149 | 13 | 43·7 | 9·7 |
| 527 | 21367 Lalande .. | May | 16 | M | 11 | 3 | 18·75 | ... | 78 | 5 | 47·8 | 8·0 |
| 528 | ... ... ... | May | 14 | M | 11 | 4 | 20·19 | .. | 150 | 14 | 31·1 | 8·2 |
| 529 | 5092 Taylor ... ... | Apl. | 30 | R | 11 | 5 | 18·86 | 5 | 143 | 49 | 7·7 | 8·8 |
| 530 | ... ... ... | Mar. | 21 | R | 11 | 5 | 41·13 | .. | 83 | 50 | 24·5 | 9·8 |
| | ... ... ... | „ | 22 | R | | 5 | 41·07 | ... | | 50 | 25·1 | 10·0 |
| 531 | 69 Leonis $p^4$ .. ... | Feb. | 22 | R | 11 | 6 | 47·83 | 5 | 89 | 19 | 45·4 | ... |
| 532 | 68 Leonis δ ... ... | Feb. | 25 | R | 11 | 6 | 52·25 | ... | 68 | 43 | 54·7 | ... |
| | ... ... ... | Mar. | 19 | R | | 6 | 52·26 | ... | | 43 | 55·0 | ... |
| | ... ... ... | „ | 23 | R | | 6 | 52·28 | ... | | 43 | 53·7 | ... |
| | ... ... ... | „ | 30 | R | | 6 | 52·30 | ... | | 43 | 55·4 | ... |
| | ... ... ... | „ | 31 | R | | 6 | 52·27 | ... | | 43 | 55·7 | ... |
| | ... ... ... | Apl. | 9 | M | | 6 | 52·33 | ... | | 43 | 55·6 | ... |
| | ... ... ... | „ | 12 | M | | 6 | 52·27 | ... | | 43 | 56·3 | ... |
| | ... ... ... | „ | 13 | M | | 6 | 52·24 | 3 | | 43 | 54·8 | ... |
| | ... ... ... | „ | 15 | M | | 6 | 52·33 | ... | | 43 | 55·9 | ... |
| | ... ... ... | „ | 20 | R | | 6 | 52·24 | ... | | 43 | 55·1 | ... |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 533 | ... ... ... | Apl. | 29 | R | 11 | 7 | 7·12 | .. | 145 | 40 | 14·6 | 8·2 |
| 534 | ... .. ... | May | 13 | M | 11 | 8 | 34·11 | ... | 150 | 50 | 49·2 | 8·0 |
| 535 | ... ... ... | May | 4 | R | 11 | 9 | 28·70 | 5 | 145 | 55 | 13·9 | 9·8 |
| 536 | 74 Leonis φ ... ... | Jan. | 26 | R | 11 | 9 | 45·02 | ... | 92 | 54 | 32·6 | ... |
| | ... ... .. | Mar. | 21 | R | | 9 | 44·85 | 4 | | 54 | 32·0 | ... |
| | ... ... .. | " | 22 | R | | 9 | 44·91 | 4 | | 54 | 31·8 | .. |
| | ... ... .. | Apl. | 18 | R | | 9 | 44·81 | ... | | 54 | 31·5 | ... |
| 537 | ... ... .. | Apl. | 26 | R | 11 | 10 | 31·90 | ... | 141 | 8 | 35·7 | 9·8 |
| 538 | ... ... .. | Apl. | 27 | R | 11 | 11 | 8·16 | 5 | 127 | 38 | 22·5 | 9·0 |
| 539 | 12 Crateris δ .. .. | Feb. | 25 | R | 11 | 12 | 32·55 | ... | 104 | 2 | 33·7 | ... |
| | ... ... .. | Mar. | 23 | R | | 12 | 32·61 | .. | | 2 | 34·3 | ... |
| | ... ... .. | " | 30 | R | | 12 | 32·61 | ... | | 2 | 35·0 | ... |
| | ... .. .. | " | 31 | R | | 12 | 32·58 | ... | | 2 | 34·4 | ... |
| | ... ... ... | Apl. | 16 | R | | 12 | 32·57 | .. | | 2 | 35·0 | ... |
| | ... ... | " | 19 | R | | 12 | 32·54 | .. | | 2 | 34·1 | ... |
| | ... ... .. | " | 25 | R | | 12 | 32·60 | ... | | 2 | 35·3 | ... |
| | ... ... .. | May | 5 | R | | 12 | 32·53 | .. | | 2 | 34·8 | ... |
| 540 | ... ... | Apl. | 30 | R | 11 | 12 | 48·64 | ... | 129 | 32 | 6·0 | 8·2 |
| | ... ... .. | May | 12 | M | | 12 | 48·56 | .. | | 32 | 7·8 | 7·7 |
| | ... ... .. | " | 14 | M | | 12 | 48·55 | ... | | 32 | 7·0 | 7·9 |
| 541 | 4726 Lacaille .. .. | Apl. | 29 | R | 11 | 16 | 5·19 | .. | 145 | 51 | 29·0 | 8·0 |
| | ... ... | May | 2 | R | | 16 | 5·22 | .. | | 51 | 28·9 | 7·2 |
| 542 | 5220 Taylor .. .. | Apl. | 30 | R | 11 | 19 | 0·55 | ... | 131 | 55 | 30·6 | 8·2 |
| | ... ... .. | May | 4 | R | | 19 | 0·39 | .. | | 55 | 30·1 | 8·5 |
| | ... ... .. | " | 13 | M | | 19 | 0·61 | 5 | | 55 | 31·7 | 7·6 |
| 543 | ... ... .. | Apl. | 28 | R | 11 | 19 | 24·95 | ... | 120 | 30 | 57·8 | 8·6 |
| 544 | ... ... .. | Mar. | 30 | R | 11 | 21 | 41·86 | 5 | 128 | 22 | 47·4 | 9·5 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 545 | ... ... .. | Mar. | 21 | R | 11 | 22 | 7·53 | ... | 129 | 4 | 15·7 | 7·8 |
| | ... ... ... | Apl. | 16 | R | | 22 | 7·83 | ... | | 4 | 16·3 | 8·5 |
| | ... ... ... | ,, | 27 | R | | 22 | 7·50 | ... | | 4 | 15·1 | 8·5 |
| | ... ... ... | May | 14 | M | | 22 | 7·77 | ... | | 4 | 15·6 | 7·5 |
| 546 | ... ... ... | Apl. | 25 | R | 11 | 22 | 48·14 | ... | 145 | 53 | 44·9 | 9·0 |
| 547 | ... ... ... | Apl. | 26 | R | 11 | 23 | 11·85 | ... | 142 | 52 | 33·9 | 9·0 |
| 548 | 87 Leonis *e* ... ... | May | 16 | M | 11 | 23 | 21·88 | ... | 92 | 15 | 13·9 | ... |
| 549 | ... ... .. | May | 2 | R | 11 | 24 | 35·16 | 5 | 146 | 8 | 57·3 | 9·0 |
| | ... ... ... | ,, | 4 | R | | 24 | 35·16 | ... | | 8 | 57·5 | 9·2 |
| 550 | ... ... ... | Apl. | 29 | R | 11 | 26 | 14·97 | ... | 143 | 51 | 15·0 | 9·0 |
| | ... ... ... | ,, | 30 | R | | 26 | 15·07 | 5 | | 51 | 15·3 | 9·2 |
| 551 | ... ... ... | Apl. | 28 | R | 11 | 26 | 39·88 | 5 | 23 | 17 | 32·2 | 10·2 |
| 552 | ... ... ... | Apl. | 26 | R | 11 | 29 | 50·97 | 5 | 149 | 15 | 40·3 | 8·5 |
| 553 | 91 Leonis *υ* ... ... | Feb. | 23 | R | 11 | 29 | 59·09 | .. | 90 | 4 | 24·1 | .. |
| | ... ... ... | ,, | 24 | R | | 29 | 59·15 | ... | | 4 | 24·9 | ... |
| | ... ... .. | Mar. | 18 | R | | 29 | 59·15 | .. | | 4 | 24·3 | ... |
| | .. ... .. | ,, | 21 | R | | 29 | 59·05 | ... | | 4 | 24·1 | ... |
| | ... ... .. | Apl. | 5 | M | | 29 | 59·17 | .. | | 4 | 24·2 | ... |
| | ... ... ... | ,, | 6 | M | | 29 | 59·23 | .. | | 4 | 24·0 | . |
| | ... ... .. | ,, | 13 | M | | 29 | 59·19 | | | 4 | 24·8 | |
| | ... ... ... | ,, | 16 | R | | 29 | 59·10 | 5 | | 4 | 24·8 | . |
| | ... .. .. | ,, | 18 | R | | 29 | 59·12 | .. | | 4 | 24·7 | . |
| | ... ... .. | ,, | 27 | R | | 29 | 59·08 | .. | | 4 | 23·3 | .. |
| | ... ... ... | May | 2 | R | | 29 | 59·13 | | | 4 | 24·4 | ... |
| | ... ... | ,, | 16 | M | | 29 | 59·05 | ... | | 4 | 25·0 | .. |
| | .. ... ... | ,, | 18 | M | | 29 | 59·19 | .. | | 4 | 23·5 | .. |
| 554 | .. ... .. | Apl. | 25 | R | 11 | 32 | 9·19 | .. | 144 | 14 | 32·4 | 9·2 |
| 555 | ... ... .. | Apl. | 29 | R | 11 | 33 | 57·32 | ... | 127 | 40 | 16·1 | 8·8 |
| 556 | .. .. .. | Mar. | 31 | R | 11 | 34 | 20·24 | 5 | 144 | 20 | 39·4 | 8·8 |

## *Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 557 | ... ... ... | Apl. | 30 | R | 11 | 36 | 3·21 | 5 | 139 | 40 | 16·5 | 9·0 |
| 558 | 5384 Taylor ... ... | May | 2 | R | 11 | 37 | 2·83 | 3 | 151 | 41 | 6·6 | 6·0 |
| | ... ... ... | ,, | 10 | M | | 37 | 2·86 | ... | | 41 | 7·9 | 6·0 |
| 559 | ... ... ... | May | 3 | R | 11 | 38 | 9·35 | 4 | 140 | 38 | 40·4 | 8·0 |
| 560 | ... ... ... | Apl. | 28 | R | 11 | 38 | 42·13 | ... | 129 | 34 | 5·1 | 9·8 |
| 561 | ... ... ... | May | 19 | M | 11 | 40 | 56·86 | ... | 140 | 52 | 2·4 | 7·9 |
| 562 | ... ... ... | Apl. | 4 | M | 11 | 41 | 9·08 | ... | 126 | 30 | 25·6 | 8·7 |
| 563 | ... ... ... | Apl. | 5 | M | 11 | 41 | 12·31 | ... | 129 | 32 | 6·9 | 8·4 |
| | ... ... ... | ,, | 28 | R | | 41 | 12·41 | ... | | 32 | 5·6 | 8·0 |
| 564 | 94 Leonis β ... ... | Mar. | 22 | R | 11 | 42 | 7·21 | ... | 74 | 40 | 4·5 | ... |
| | ... ... ... | ,, | 31 | R | | 42 | 7·22 | ... | | 40 | 4·8 | ... |
| | ... ... ... | Apl. | 6 | M | | 42 | 7·20 | 5 | | 40 | 5·0 | ... |
| | ... ... ... | ,, | 8 | M | | 42 | 7·24 | ... | | 40 | 5·2 | ... |
| | ... ... ... | ,, | 16 | R | | 42 | 7·29 | ... | | 40 | 5·4 | ... |
| | ... ... ... | ,, | 21 | R | | 42 | 7·12 | ... | | 40 | 4·9 | ... |
| | ... ... ... | ,, | 25 | R | | 42 | 7·14 | ... | | 40 | 4·7 | ... |
| | ... ... ... | ,, | 26 | R | | 42 | 7·13 | ... | | 40 | 5·2 | ... |
| | ... ... ... | ,, | 27 | R | | 42 | 7·20 | ... | | 40 | 5·3 | ... |
| | ... ... ... | May | 2 | R | | 42 | 7·27 | ... | | 40 | 4·3 | ... |
| | ... ... ... | ,, | 12 | M | | 42 | 7·28 | ... | | 40 | 5·2 | ... |
| 565 | ... ... ... | Apl. | 29 | R | 11 | 43 | 8·20 | ... | 143 | 45 | 15·4 | 9·0 |
| | ... ... ... | May | 13 | M | | 43 | 8·36 | ... | | 45 | 16·0 | 7·9 |
| 566 | 5 Virginis β ... ... | Feb. | 23 | R | 11 | 43 | 36·60 | ... | 87 | 28 | 8·6 | ... |
| | ... ... ... | ,, | 24 | R | | 43 | 36·73 | ... | | 28 | 9·3 | ... |
| | ... ... ... | Apl. | 18 | R | | 43 | 36·62 | ... | | 28 | 8·3 | ... |
| | ... ... ... | ,, | 19 | R | | 43 | 36·65 | ... | | 28 | 8·3 | ... |
| 567 | 5427 Taylor ... ... | May | 20 | M | 11 | 44 | 5·15 | ... | 94 | 34 | 38·6 | 6·0 |
| 568 | ... ... ... | Apl. | 30 | R | 11 | 44 | 44·16 | ... | 129 | 2 | 40·7 | 8·7 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension. 1864. h. | m. | s. | No. of Wires. | Mean Polar Distance. 1864. ° | ′ | ″ | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 569 | 5433 Taylor ... ... | Apl. 28 | R | 11 | 44 | 51·57 | ... | 129 | 30 | 3·0 | 7·7 |
| 570 | ... ... ... | May 3 | R | 11 | 45 | 51·40 | 5 | 142 | 31 | 0·6 | 9·3 |
| 571 | 64 Ursæ Majoris γ ... | Apl. 21 | R | 11 | 46 | 39·67 | ... | 35 | 32 | 56·9 | ... |
| 572 | ... ... ... | Mar. 31 | R | 11 | 49 | 57·01 | ... | 128 | 5 | 29·8 | 8·7 |
| | ... ... ... | Apl. 27 | R | | 49 | 56·91 | .. | | 5 | 29·3 | 8·7 |
| 573 | ... ... ... | Apl. 4 | M | 11 | 51 | 23·65 | ... | 128 | 52 | 34·2 | 8·4 |
| 574 | ... ... ... | Apl. 25 | R | 11 | 51 | 36·57 | ... | 144 | 12 | 54·1 | 9·3 |
| 575 | ... ... ... | May 10 | M | 11 | 52 | 20·94 | ... | 154 | 32 | 32·2 | ... |
| 576 | ... ... ... | Apl. 29 | R | 11 | 53 | 50·26 | 5 | 129 | 35 | 50·5 | 9·8 |
| | ... ... ... | May 14 | M | | 53 | 50·07 | 5 | | 35 | 49·6 | 9·6 |
| 577 | ... ... ... | Feb. 25 | R | 11 | 56 | 23·62 | 5 | 128 | 29 | 56·4 | 9·0 |
| | ... ... ... | Apl. 27 | R | | 56 | 23·61 | ... | | 29 | 55·7 | 9·3 |
| | ... ... ... | May 13 | M | | 56 | 23·58 | ... | | 29 | 55·2 | 8·5 |
| 578 | 5534 Taylor ... ... | Apl. 30 | R | 11 | 56 | 49·55 | .. | 143 | 57 | 19·9 | 8·0 |
| 579 | 4995 Lacaille ... | Apl. 26 | R | 11 | 56 | 51·06 | .. | 142 | 44 | 26·8 | 7·8 |
| 580 | 5535 Taylor ... .. | Mar. 31 | R | 11 | 57 | 3·46 | 5 | 70 | 25 | 28·9 | 8·0 |
| | ... ... ... | May 3 | R | | 57 | 3·48 | .. | | 25 | 30·5 | 7·8 |
| 581 | 89 R. P. L. ... ... | Apl. 6 | M | 11 | 57 | 51·03 | 3 | 3 | 39 | 31·9 | ... |
| | ... ... ... | May 12 | M | | 57 | 51·57 | 3 | | 39 | 35·0 | ... |
| | ... ... *s.p.* | Nov. 5 | M | | 57 | 51·06 | 3 | | 39 | 33·9 | ... |
| 582 | ... ... ... | Feb. 25 | R | 11 | 59 | 1·15 | 4 | 128 | 27 | 45·6 | 8·3 |
| | ... ... ... | Apl. 27 | R | | 59 | 1·28 | .. | | 27 | 45·1 | 8·0 |
| 583 | ... ... ... | Apl. 29 | R | 11 | 59 | 44·39 | 5 | 144 | 16 | 10·7 | 9·0 |
| | ... ... ... | May 16 | M | | 59 | 44·27 | 4 | | 16 | 11·7 | 8·0 |
| 584 | ... ... .. | May 4 | R | 12 | 1 | 37·16 | 4 | 130 | 1 | 34·8 | 9·0 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 585 | 5041 Lacaille .. | Apl. | 14 | M | 12 | 2 | 32·58 | ... | 141 | 23 | 14·8 | 7·9 |
| 586 | ... ... .. | May | 5 | R | 12 | 2 | 37·25 | ... | 141 | 5 | 39·5 | 9·0 |
| 587 | 10 Virginis .. .. | Apl. | 18 | R | 12 | 2 | 43·10 | ... | 67 | 20 | 18·4 | ... |
| 588 | 2 Corvi ε ... | Apl. | 4 | M | 12 | 3 | 8·07 | 5 | 111 | 51 | 47·8 | ... |
| | ... ... .. | ,, | 13 | M | | 3 | 8·14 | .. | | 51 | 47·9 | ... |
| | ... ... .. | ,, | 25 | R | | 3 | 8·03 | ... | | 51 | 47·1 | ... |
| | ... ... .. | ,, | 26 | R | | 3 | 8·02 | ... | | 51 | 47·4 | ... |
| | ... ... .. | ,, | 27 | R | | 3 | 8·07 | 5 | | 51 | 47·4 | ... |
| | ... ... .. | May | 14 | M | | 3 | 8·16 | ... | | 51 | 47·1 | ... |
| | ... ... .. | ,, | 17 | M | | 3 | 8·16 | ... | | 51 | 47·5 | ... |
| | .. ... . | ,, | 18 | M | | 3 | 7·98 | ... | | 51 | 47·5 | ... |
| 589 | ... ... .. | May | 3 | R | 12 | 6 | 3·08 | 5 | 130 | 11 | 7·8 | 9·9 |
| 590 | ... ... .. | Apl. | 8 | M | 12 | 6 | 12·47 | ... | 138 | 27 | 32·0 | 8·2 |
| 591 | 5613 Taylor ... ... | May | 2 | R | 12 | 7 | 55·44 | ... | 130 | 22 | 49·0 | 8·0 |
| 592 | 69 Ursæ Majoris δ . | May | 13 | M | 12 | 8 | 40·84 | ... | 32 | 12 | 42·6 | ... |
| | ... ... .. | ,, | 19 | M | | 8 | 41·11 | ... | | 12 | 42·1 | ... |
| 593 | .. ... .. | Apl. | 29 | R | 12 | 8 | 50·14 | ... | 141 | 20 | 13·0 | 8·8 |
| 594 | 13 Virginis ... .. | Mar. | 22 | R | 12 | 11 | 41·99 | . | 91 | 1 | 51·6 | ... |
| | .. . | ,, | 23 | R | | 11 | 42·14 | ... | | 1 | 51·0 | ... |
| 595 | 5648 Taylor .. .. | Apl. | 14 | M | 12 | 12 | 31·23 | ... | 152 | 5 | 58·2 | 6·9 |
| | ... ... | May | 12 | M | | 12 | 31·30 | 5 | | 5 | 57·2 | 6·9 |
| | ... ... .. | ,, | 20 | M | | 12 | 31·07 | .. | | 5 | 57·0 | 6·8 |
| 596 | 15 Virginis η .. | Apl. | 18 | R | 12 | 12 | 56·91 | ... | 89 | 54 | 38·2 | ... |
| | ... .. .. | ,, | 19 | R | | 12 | 56·91 | .. | | 54 | 39·1 | ... |
| | ... . .. | ,, | 26 | R | | 12 | 56·91 | .. | | 54 | 37·9 | ... |
| | ... ... . | ,, | 27 | R | | 12 | 56·89 | ... | | 54 | 39·4 | ... |
| | ... ... .. | ,, | 30 | R | | 12 | 56·88 | .. | | 54 | 38·9 | ... |
| | ... ... ... | May | 16 | M | | 12 | 56·93 | ... | | 54 | 39·9 | ... |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 597 | ... ... ... | May | 4 | R | 12 | 14 | 3·66 | 4 | 143 | 44 | 49·8 | 9·5 |
| 598 | 5119 Lacaille ... | Apl. | 8 | M | 12 | 15 | 21·68 | ... | 138 | 34 | 15·4 | 8·4 |
| 599 | ... ... .. | May | 14 | M | 12 | 16 | 46·01 | ... | 147 | 9 | 46·4 | 8·0 |
| 600 | ... ... ... | Feb. | 24 | R | 12 | 17 | 24·29 | ... | 24 | 43 | 7·4 | 8·9 |
| | ... ... ... | May | 2 | R | | 17 | 24·15 | 4 | | 43 | 7·1 | 8·5 |
| 601 | ... ... ... | May | 5 | R | 12 | 18 | 39·10 | ... | 143 | 30 | 8·0 | 9·5 |
| 602 | ... ... ... | Apl. | 27 | R | 12 | 19 | 0·47 | 5 | 129 | 43 | 47·8 | ... |
| 603 | α Crucis (1st) ... | Apl. | 21 | R | 12 | 19 | 3·38 | ... | 152 | 20 | 42·1 | ... |
| | ... ... ... | May | 18 | M | | 19 | 3·65 | 5 | | 20 | 42·6 | ... |
| 604 | ... ... ... | May | 13 | M | 12 | 21 | 6·90 | ... | 145 | 42 | 20·9 | 8·0 |
| | ... ... ... | „ | 19 | M | | 21 | 6·78 | ... | | 42 | 17·0 | 8·0 |
| 605 | ... ... ... | Apl. | 14 | M | 12 | 24 | 38·55 | ... | 150 | 58 | 39·2 | 8·3 |
| | ... ... ... | May | 12 | M | | 24 | 38·61 | 3 | | 58 | 38·5 | 8·2 |
| 606 | ... ... ... | Apl. | 29 | R | 12 | 25 | 56·04 | 5 | 28 | 2 | 1·0 | 7·5 |
| 607 | 21 Virginis q .. | Feb. | 24 | R | 12 | 26 | 45·81 | ... | 98 | 42 | 6·2 | ... |
| | ... ... .. | Mar. | 22 | R | | 26 | 45·81 | ... | | 42 | 4·3 | ... |
| | ... ... .. | „ | 23 | R | | 26 | 45·78 | ... | | 42 | 4·8 | ... |
| | ... ... ... | May | 16 | M | | 26 | 45·74 | ... | | 42 | 5·6 | 6·0 |
| | ... ... ... | „ | 17 | M | | 26 | 45·89 | ... | | 42 | 5·9 | 6·0 |
| 608 | ... ... ... | May | 14 | M | 12 | 27 | 4·41 | ... | 38 | 0 | 26·8 | 8·0 |
| 609 | 9 Corvi β ... .. | Apl. | 21 | R | 12 | 27 | 14·52 | ... | 112 | 38 | 38·0 | ... |
| | .. ... ... | May | 5 | R | | 27 | 14·84 | ... | | 38 | 39·3 | .. |
| | ... ... .. | „ | 6 | R | | 27 | 14·91 | ... | | 38 | 39·1 | ... |
| | ... ... ... | „ | 7 | R | | 27 | 14·85 | .. | | 38 | 39·3 | ... |
| 610 | ... .. | May | 4 | R | 12 | 27 | 49·34 | 5 | 140 | 55 | 32·3 | 9·2 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 611 | T Ursæ Majoris Var. 3 | Mar. | 31 | R | 12 | 30 | 11·19 | 6 | 29 | 45 | 49·3 | 9·5 |
| | ... ... ... | May | 3 | R | | 30 | 11·09 | ... | | 45 | 49·6 | 8·0 |
| | ... ... ... | „ | 19 | M | | 30 | 11·30 | ... | | 45 | 49·6 | 7·5 |
| 612 | ... ... ... | May | 24 | R | 12 | 30 | 50·84 | 5 | 142 | 19 | 41·5 | 9·2 |
| 613 | R Virginis Var. 2 ... | Apl. | 22 | R | 12 | 31 | 35·78 | ... | 82 | 15 | 46·4 | 9·5 |
| | ... ... ... | May | 13 | M | | 31 | 35·88 | ... | | 15 | 47·8 | 6·9 |
| | ... ... ... | „ | 18 | M | | 31 | 35·82 | ... | | 15 | 47·6 | 6·1 |
| | ... ... ... | „ | 20 | M | | 31 | 35·91 | ... | | 15 | 47·7 | 6·6 |
| 614 | ... ... ... | Apl. | 30 | R | 12 | 32 | 8·63 | 5 | 29 | 14 | 18·8 | 10·0 |
| | ... ... ... | May | 2 | R | | 32 | 8·53 | ... | | 14 | 21·4 | 9·5 |
| 615 | 26 Virginis χ ... | Feb. | 24 | R | 12 | 32 | 13·80 | ... | 97 | 14 | 47·9 | ... |
| | ... ... ... | Apl. | 19 | R | | 32 | 13·77 | 5 | | 14 | 47·9 | ... |
| | ... ... ... | „ | 20 | R | | 32 | 13·76 | ... | | 14 | 48·2 | ... |
| | ... ... ... | May | 16 | M | | 32 | 13·72 | ... | | 14 | 47·9 | 6·0 |
| 616 | ... ... ... | Apl. | 28 | R | 12 | 32 | 51·66 | ... | 28 | 13 | 23·1 | 7·0 |
| 617 | 5830 Taylor... ... | May | 12 | M | 12 | 34 | 26·89 | ... | 144 | 0 | 51·4 | 7·5 |
| 618 | XII 592 W. B. E. ... | Apl. | 13 | M | 12 | 36 | 1·17 | ... | 93 | 17 | 48·5 | 8·0 |
| | ... ... | „ | 14 | M | | 36 | 1·29 | ... | | 17 | 48·6 | 8·0 |
| | ... ... ... | „ | 15 | M | | 36 | 1·43 | ... | | 17 | 48·7 | 8·0 |
| 619 | S Ursæ Majoris Var. 2 | Apl. | 22 | R | 12 | 37 | 58·27 | ... | 28 | 9 | 41·7 | 9·5 |
| | ... ... ... | May | 5 | R | | 37 | 58·37 | ... | | 9 | 42·6 | 9·9 |
| 620 | ... ... ... | Apl. | 5 | M | 12 | 39 | 36·14 | ... | 94 | 1 | 52·6 | 9·6 |
| | ... ... ... | „ | 6 | M | | 39 | 36·24 | ... | | 1 | 53·6 | 9·7 |
| | ... ... ... | „ | 7 | M | | 39 | 36·36 | ... | | 1 | 54·6 | 9·6 |
| 621 | ... ... ... | May | 14 | M | 12 | 40 | 49·04 | 5 | 141 | 52 | 54·0 | 7·9 |
| 622 | ... ... ... | May | 7 | R | 12 | 41 | 40·06 | 5 | 141 | 49 | 33·0 | 8·0 |
| 623 | ... ... ... | May | 19 | M | 12 | 42 | 3·34 | ... | 147 | 16 | 27·3 | 9·2 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 624 | ... ... ... | May | 13 | M | 12 | 42 | 47·38 | ... | 142 | 51 | 56·9 | 8·7 |
| 625 | ... ... ... | May | 26 | R | 12 | 42 | 51·08 | ... | 139 | 25 | 15·5 | 9·3 |
| 626 | ... ... ... | May | 12 | M | 12 | 43 | 17·33 | ... | 129 | 7 | 50·7 | 8·3 |
| 627 | ... ... ... | Apl. | 28 | R | 12 | 43 | 26·16 | 5 | 83 | 19 | 14·1 | 8·8 |
| | ... ... ... | May | 5 | R | | 43 | 26·02 | ... | | 19 | 14·8 | 9·0 |
| | ... ... ... | ,, | 20 | M | | 43 | 26·06 | ... | | 19 | 14·4 | 8·7 |
| | ... ... ... | ,, | 24 | R | | 43 | 26·09 | 5 | | 22 | 15·0 | 9·0 |
| 628 | U Virginis Var. 3 ... | Apl. | 29 | R | 12 | 44 | 11·66 | 5 | 83 | 42 | 18·4 | 8·7 |
| | ... ... ... | May | 3 | R | | 44 | 11·77 | ... | | 42 | 21·9 | 9·3 |
| | ... ... ... | ,, | 6 | R | | 44 | 11·92 | 5 | | 42 | 21·3 | 9·8 |
| 629 | 2922 Radcliffe ... | May | 18 | M | 12 | 45 | 6·74 | ... | 26 | 16 | 27·1 | 6·2 |
| 630 | ... ... ... | Apl. | 28 | R | 12 | 45 | 10·16 | 4 | 83 | 19 | 5·4 | 9·7 |
| | ... ... ... | May | 5 | R | | 45 | 10·04 | ... | | 19 | 7·5 | 9·8 |
| | ... ... ... | ,, | 24 | R | | 45 | 10·17 | 5 | | 19 | 7·7 | 9·5 |
| 631 | 40 Virginis ψ ... | Apl. | 19 | R | 12 | 47 | 16·91 | ... | 98 | 47 | 58·2 | ... |
| | ... ... ... | ,, | 20 | R | | 47 | 17·05 | ... | | 47 | 58·4 | ... |
| 632 | 99 R. P. L. ... | May | 17 | M | 12 | 48 | 9·91 | 2 | 5 | 50 | 52·8 | ... |
| 633 | ... ... ... | May | 14 | M | 12 | 49 | 23·85 | 6 | 145 | 34 | 11·3 | 7·8 |
| 634 | 12 Can. Venaticorum | Apl. | 22 | R | 12 | 49 | 39·68 | ... | 50 | 56 | 47·9 | ... |
| | ... ... ... | ,, | 26 | R | | 49 | 39·62 | ... | | 56 | 47·9 | ... |
| | ... ... ... | May | 3 | R | | 49 | 39·62 | ... | | 56 | 48·5 | ... |
| | ... ... ... | ,, | 4 | R | | 49 | 39·60 | ... | | 56 | 47·7 | ... |
| | ... ... ... | ,, | 6 | R | | 49 | 39·53 | ... | | 56 | 47·4 | ... |
| | ... ... ... | ,, | 7 | R | | 49 | 39·52 | ... | | 56 | 48·6 | ... |
| | ... ... ... | ,, | 13 | M | | 49 | 39·73 | ... | | 56 | 48·6 | ... |
| | ... ... ... | ,, | 16 | M | | 49 | 39·64 | ... | | 56 | 47·1 | ... |
| | ... ... ... | ,, | 19 | M | | 49 | 39·60 | 3 | | 56 | 48·7 | ... |
| | ... ... ... | ,, | 25 | R | | 49 | 39·58 | ... | | 56 | 48·3 | ... |
| | ... ... ... | ,, | 26 | R | | 49 | 39·63 | ... | | 56 | 48·5 | ... |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 635 | 5974 Taylor... .. | May | 28 | R | 12 | 51 | 54·65 | ... | 143 | 38 | 34·3 | 8·7 |
| 636 | ... ... ... | May | 20 | M | 12 | 53 | 16·40 | ... | 143 | 40 | 22·3 | 8·8 |
| 637 | ... ... ... | May | 24 | R | 12 | 54 | 37·89 | ... | 130 | 18 | 22·8 | 9·2 |
| 638 | ... ... ... | Apl. | 22 | R | 12 | 56 | 10·93 | 3 | 113 | 12 | 31·8 | 10·2 |
| | ... ... ... | ,, | 25 | R | | 56 | 11·09 | 4 | | 12 | 32·0 | 10·3 |
| 639 | 5381 Lacaille ... | May | 25 | R | 12 | 57 | 7·84 | ... | 129 | 57 | 6·1 | 8·8 |
| 640 | ... ... ... | May | 14 | M | 12 | 58 | 6·33 | 6 | 124 | 28 | 41·2 | 9·1 |
| | ... ... ... | ,, | 19 | M | | 58 | 6·10 | 5 | | 28 | 42·0 | 9·0 |
| 641 | 50 Virginis... ... | Mar. | 23 | R | 13 | 2 | 38·29 | ... | 90 | 36 | 11·0 | ... |
| | ... ... ... | May | 17 | M | | 2 | 38·32 | ... | | 36 | 10·9 | 6·0 |
| | ... ... ... | ,, | 18 | M | | 2 | 38·25 | ... | | 36 | 11·1 | 6·0 |
| 642 | 51 Virginis θ ... | Apl. | 28 | R | 13 | 2 | 54·61 | ... | 94 | 48 | 43·3 | ... |
| | ... ... ... | ,, | 29 | R | | 2 | 54·58 | ... | | 48 | 43·3 | ... |
| | ... ... ... | May | 3 | R | | 2 | 54·57 | ... | | 48 | 44·3 | ... |
| | ... ... ... | ,, | 4 | R | | 2 | 54·58 | ... | | 48 | 43·4 | ... |
| | ... ... ... | ,, | 7 | R | | 2 | 54·60 | ... | | 48 | 43·8 | ... |
| | ... ... ... | ,, | 12 | M | | 2 | 54·50 | ... | | 48 | 44·1 | ... |
| | ... ... ... | ,, | 13 | M | | 2 | 54·55 | ... | | 48 | 44·6 | ... |
| | ... ... ... | ,, | 16 | M | | 2 | 54·58 | ... | | 48 | 45·0 | ... |
| | ... ... ... | ,, | 24 | R | | 2 | 54·62 | ... | | 48 | 44·8 | ... |
| | ... ... ... | ,, | 25 | R | | 2 | 54·57 | ... | | 48 | 44·9 | ... |
| | ... ... ... | ,, | 26 | R | | 2 | 54·56 | ... | | 48 | 43·8 | ... |
| 643 | ... ... ... | May | 31 | R | 13 | 4 | 32·13 | 4 | 138 | 10 | 22·3 | 9·0 |
| 644 | W. Virginis Var 1 .. | Feb. | 25 | R | 13 | 6 | 54·20 | 5 | 105 | 49 | 53·3 | ... |
| | ... ... ... | Apl. | 18 | R | | 6 | 54·17 | 4 | | 49 | 55·4 | 9·5 |
| | ... ... ... | ,, | 25 | R | | 6 | 54·19 | ... | | 49 | 54·9 | 8·0 |
| | ... ... ... | May | 20 | M | | 6 | 54·17 | ... | | 49 | 55·1 | 7·7 |
| 645 | ... ... ... | May | 14 | M | 13 | 9 | 45·48 | ... | 129 | 56 | 15·3 | 8·0 |
| | ... ... ... | ,, | 19 | M | | 9 | 45·45 | ... | | 56 | 16·0 | 8·2 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 646 | 58 Virginis ... .. | Mar. | 23 | R | 13 | 10 | 19·73 | ... | 90 | 49 | 42·7 | ... |
| 647 | 101 R. P. L. ... | Apl. | 26 | R | 13 | 10 | 26·73 | 3 | 1 | 37 | 17·0 | ... |
| | ... ... ... | May | 5 | R | | 10 | 26·00 | 3 | | 37 | 18·5 | ... |
| | ... ... s.p. | Oct. | 27 | R | | 10 | 25·61 | 3 | | 37 | 17·3 | ... |
| 648 | 6129 Taylor ... .. | May | 18 | M | 13 | 12 | 12·90 | 3 | 130 | 28 | 30·9 | 7·4 |
| | ... ... ... | „ | 21 | M | | 12 | 12·90 | ... | | 28 | 29·8 | 7·4 |
| 649 | ... ... ... | Apl. | 29 | R | 13 | 12 | 53·10 | ... | 122 | 56 | 34·2 | 7·8 |
| 650 | 5503 Lacaille ... | Apl. | 12 | M | 13 | 14 | 8·90 | ... | 125 | 23 | 51·8 | 7·8 |
| | ... ... ... | May | 31 | R | | 14 | 8·93 | ... | | 23 | 50·9 | ... |
| 651 | 13563 O. A. N. ... | May | 30 | R | 13 | 15 | 24·40 | .. | 27 | 53 | 14·0 | 8·5 |
| 652 | ... ... ... | May | 24 | R | 13 | 15 | 47·75 | ... | 145 | 12 | 51·0 | 8·8 |
| 653 | 67 Virginis α (*Spica*) | Feb. | 25 | R | 13 | 18 | 1·87 | ... | 100 | 27 | 1·9 | ... |
| | ... ... ... | Apl. | 20 | R | | 18 | 1·87 | .. | | 27 | 1·8 | ... |
| | ... ... ... | „ | 21 | R | | 18 | 1·82 | ... | | 27 | 2·3 | ... |
| | ... ... ... | „ | 28 | R | | 18 | 1·85 | ... | | 27 | 1·6 | ... |
| | ... ... ... | „ | 29 | R | | 18 | 1·89 | ... | | 27 | 1·1 | ... |
| | ... ... ... | May | 3 | R | | 18 | 1·89 | ... | | 27 | 2·7 | ... |
| | ... ... ... | „ | 12 | M | | 18 | 1·81 | ... | | 27 | 2·2 | ... |
| | ... ... ... | „ | 13 | M | | 18 | 1·80 | ... | | 27 | 1·7 | ... |
| | ... ... ... | „ | 14 | M | | 18 | 1·85 | ... | | 27 | 1·1 | .. |
| | ... ... ... | „ | 17 | M | | 18 | 1·90 | ... | | 27 | 2·6 | ... |
| | ... ... ... | „ | 20 | M | | 18 | 1·74 | ... | | 27 | 2·5 | ... |
| | ... ... ... | „ | 21 | M | | 18 | 1·87 | ... | | 27 | 1·0 | ... |
| | ... ... ... | „ | 26 | R | | 18 | 1·86 | ... | | 27 | 2·0 | ... |
| | ... ... ... | June | 14 | M | | 18 | 1·86 | ... | | 27 | 1·6 | .. |
| 654 | V Virginis Var. 7 .. | Apl. | 16 | R | 13 | 20 | 46·00 | ... | 92 | 27 | 59·2 | 9·3 |
| 655 | R Hydræ Var. 1 .. | Mar. | 16 | M | 13 | 22 | 17·30 | .. | 112 | 34 | 38·9 | 5·5 |
| 656 | ... .. ... | Apl. | 27 | R | 13 | 23 | 18·12 | 3 | 88 | 38 | 7·3 | 10·8 |
| 657 | 6257 Taylor ... ... | June | 2 | R | 13 | 25 | 36·07 | 6 | 148 | 48 | 21·6 | 8·5 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 658 | 76 Virginis h ... | Apl. | 20 | R | 13 | 25 | 48·62 | ... | 99 | 27 | 46·0 | ... |
| | ... ... ... | „ | 21 | R | | 25 | 48·37 | ... | | 27 | 47·3 | ... |
| | ... ... ... | June | 16 | R | | 25 | 48·47 | 5 | | 27 | 48·0 | ... |
| 659 | S Virginis Var. 6 ... | Apl. | 12 | M | 13 | 25 | 54·01 | ... | 96 | 29 | 41·5 | 7·7 |
| | ... ... .. | May. | 23 | R | | 25 | 53·94 | ... | | 29 | 42·2 | 6·3 |
| 660 | ... ... .. | June | 3 | R | 13 | 26 | 37·73 | 5 | 131 | 35 | 11·9 | 8·8 |
| 661 | 79 Virginis ζ .. | Apl. | 28 | R | 13 | 27 | 45·90 | ... | 89 | 53 | 58·3 | ... |
| | ... ... ... | „ | 29 | R | | 27 | 45·89 | ... | | 53 | 58·6 | ... |
| | ... ... .. | „ | 30 | R | | 27 | 45·90 | ... | | 53 | 58·7 | ... |
| | ... ... .. | May | 2 | R | | 27 | 45·93 | ... | | 53 | 59·3 | ... |
| | ... ... ... | „ | 3 | R | | 27 | 45·86 | ... | | 53 | 59·6 | ... |
| | ... ... ... | „ | 4 | R | | 27 | 45·91 | 5 | | 53 | 58·6 | ... |
| | ... ... .. | „ | 5 | R | | 27 | 45·81 | ... | | 53 | 58·9 | ... |
| | ... ... .. | „ | 10 | M | | 27 | 45·78 | ... | | 53 | 59·0 | ... |
| | ... ... ... | „ | 13 | M | | 27 | 45·88 | ... | | 53 | 58·9 | ... |
| | ... ... .. | „ | 14 | M | | 27 | 45·85 | ... | | 53 | 57·6 | ... |
| | ... ... .. | „ | 17 | M | | 27 | 45·89 | ... | | 53 | 59·0 | ... |
| | ... ... ... | „ | 19 | M | | 27 | 45·87 | ... | | 53 | 58·8 | ... |
| | ... ... ... | „ | 20 | M | | 27 | 45·88 | ... | | 53 | 59·3 | ... |
| | ... ... ... | „ | 21 | M | | 27 | 45·90 | ... | | 53 | 57·1 | ... |
| | ... ... .. | „ | 30 | R | | 27 | 45·86 | ... | | 53 | 58·5 | |
| 662 | ... ... ... | May | 24 | R | 13 | 36 | 31·14 | 5 | 144 | 38 | 18·4 | 9·0 |
| | ... .. .. | June | 2 | R | | 36 | 31·47 | 6 | | 38 | 18·5 | 9·5 |
| 663 | 6363 Taylor .. | May | 25 | R | 13 | 36 | 38·28 | ... | 147 | 33 | 27·4 | 8·8 |
| 664 | ... ... .. | May | 2 | R | 13 | 37 | 30·52 | 5 | 123 | 48 | 3·5 | 9·7 |
| | ... .. ... | „ | 30 | R | | 37 | 30·21 | 5 | | 48 | 3·2 | 9·5 |
| 665 | ... ... ... | May | 20 | M | 13 | 37 | 31·19 | ... | 128 | 40 | 16·9 | 7·7 |
| 666 | ... ... ... | May | 3 | R | 13 | 38 | 13·85 | 6 | 122 | 47 | 5·3 | 8·7 |
| | ... ... ... | „ | 19 | M | | 38 | 13·87 | 6 | | 47 | 3·1 | 8·4 |
| 667 | ... ... .. | May | 16 | M | 13 | 38 | 33·84 | 5 | 152 | 45 | 59·9 | 8·0 |
| | ... ... ... | „ | 21 | M | | 38 | 34·10 | 3 | | 45 | 59·9 | 8·3 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 668 | ... ... ... | May | 4 | R | 13 | 40 | 30·30 | ... | 129 | 24 | 0·6 | 9·2 |
| 669 | 85 Ursæ Majoris η ... | Apl. | 30 | R | 13 | 42 | 10·62 | ... | 40 | 0 | 24·9 | ... |
| | ... ... ... | May | 7 | R | | 42 | 10·59 | ... | | 0 | 25·6 | ... |
| | ... ... ... | ,, | 23 | R | | 42 | 10·66 | ... | | 0 | 25·8 | ... |
| 670 | ... ... ... | May | 5 | R | 13 | 43 | 14·30 | .. | 123 | 6 | 31·9 | 8·7 |
| | ... ... ... | ,, | 17 | M | | 43 | 14·47 | ... | | 6 | 31·9 | 8·0 |
| 671 | ... ... ... | May | 18 | M | 13 | 43 | 24·14 | 5 | 123 | 13 | 4·9 | 8·2 |
| 672 | ... ... ... | May | 28 | R | 13 | 44 | 15·25 | ... | 127 | 56 | 40·9 | ... |
| 673 | ... ... ... | May | 30 | R | 13 | 45 | 23·48 | ... | 128 | 23 | 4·5 | 9·0 |
| 674 | ... ... ... | May | 3 | R | 13 | 45 | 42·35 | ... | 122 | 54 | 30·9 | 8·5 |
| | ... ... ... | ,, | 31 | R | | 45 | 42·44 | 5 | | 54 | 31·7 | ... |
| 675 | 8 Bootis γ ... ... | Apl. | 30 | R | 13 | 48 | 12·51 | ... | 70 | 55 | 10·7 | .. |
| | ... ... ... | May | 2 | R | | 48 | 12·47 | ... | | 55 | 10·4 | .. |
| | ... ... ... | ,, | 4 | R | | 48 | 12·56 | 5 | | 55 | 10·7 | ... |
| | ... ... .. | ,, | 6 | R | | 48 | 12·50 | ... | | 55 | 10·5 | ... |
| | ... .. ... | ,, | 7 | R | | 48 | 12·45 | ... | | 55 | 10·4 | ... |
| | ... ... ... | ,, | 10 | M | | 48 | 12·53 | ... | | 55 | 10·7 | ... |
| | ... ... ... | ,, | 19 | M | | 48 | 12·54 | .. | | 55 | 11·4 | ... |
| | ... ... ... | ,, | 20 | M | | 48 | 12·65 | . | | 55 | 11·1 | ... |
| | ... ... .. | ,, | 23 | R | | 48 | 12·49 | ... | | 55 | 10·3 | ... |
| | ... ... ... | ,, | 24 | R | | 48 | 15·52 | ... | | 55 | 10·3 | ... |
| | ... ... .. | ,, | 25 | R | | 48 | 12·47 | ... | | 55 | 10·4 | ... |
| | ... ... .. | June | 2 | R | | 48 | 12·50 | ... | | 55 | 10·2 | ... |
| | ... ... .. | ,, | 14 | M | | 48 | 12·47 | ... | | 55 | 9·3 | ... |
| 676 | ... .. ... | Apl. | 19 | R | 13 | 50 | 11·63 | 4 | 123 | 43 | 43·6 | 8·3 |
| | ... ... ... | May | 5 | R | | 50 | 11·60 | ... | | 43 | 44·4 | 8·2 |
| 677 | ... .. ... | Apl. | 19 | R | 13 | 50 | 40·64 | 5 | 123 | 43 | 55·5 | 8·0 |
| 678 | ... ... ... | May | 13 | M | 13 | 53 | 7·78 | 5 | 125 | 40 | 51·4 | 8·4 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 679 | 93 Virginis τ ... | Apl. | 22 | R | 13 | 54 | 43·57 | ... | 87 | 47 | 44·9 | ... |
| | ... ... ... | ,, | 28 | R | | 54 | 43·56 | ... | | 47 | 45·1 | ... |
| | ... ... ... | ,, | 29 | R | | 54 | 43·57 | ... | | 47 | 44·2 | ... |
| | ... ... ... | ,, | 30 | R | | 54 | 43·59 | ... | | 47 | 44·9 | ... |
| | ... ... ... | May | 12 | R | | 54 | 43·60 | ... | | 47 | 45·5 | ... |
| | ... ... ... | ,, | 14 | M | | 54 | 43·50 | ... | | 47 | 44·9 | ... |
| | ... ... ... | ,, | 23 | R | | 54 | 43·57 | ... | | 47 | 46·4 | ... |
| | ... ... ... | ,, | 24 | R | | 54 | 43·54 | ... | | 47 | 45·7 | ... |
| | ... ... ... | ,, | 25 | R | | 54 | 43·61 | ... | | 47 | 45·7 | ... |
| | ... ... ... | ,, | 28 | R | | 54 | 43·66 | ... | | 47 | 45·7 | ... |
| | ... ... ... | ,, | 30 | R | | 54 | 43·60 | ... | | 47 | 45·5 | ... |
| | ... ... ... | June | 2 | R | | 54 | 43·61 | ... | | 47 | 45·2 | ... |
| | ... ... ... | ,, | 14 | M | | 54 | 43·49 | ... | | 47 | 45·0 | ... |
| 680 | 5794 Lacaille ... | May | 21 | M | 13 | 57 | 4·80 | ... | 152 | 47 | 34·6 | 6·3 |
| 681 | 6585 Taylor ... ... | May | 5 | R | 14 | 1 | 22·44 | ... | 124 | 14 | 3·6 | 7·7 |
| 682 | ... ... ... | May | 24 | R | 14 | 2 | 25·92 | 4 | 129 | 4 | 15·8 | 9·0 |
| | ... ... ... | June | 3 | R | | 2 | 25·99 | ... | | 4 | 14·5 | 9·0 |
| 683 | U Bootis Var 4 ... | Apl. | 22 | R | 14 | 4 | 21·56 | 4 | 70 | 32 | 32·1 | 9·2 |
| | ... ... ... | May | 28 | R | | 4 | 21·70 | ... | | 32 | 31·3 | 9·5 |
| | ... ... ... | June | 2 | R | | 4 | 21·67 | 5 | | 32 | 33·2 | 9·7 |
| 684 | 6616 Taylor... ... | May | 14 | M | 14 | 5 | 30·32 | ... | 116 | 26 | 48·4 | 5·7 |
| 685 | 98 Virginis χ ... | May | 18 | M | 14 | 5 | 38·60 | 3 | 90 | 38 | 19·9 | ... |
| | ... ... ... | ,, | 19 | M | | 5 | 38·55 | ... | | 38 | 20·4 | ... |
| 686 | ... ... ... | May | 12 | M | 14 | 6 | 8·79 | ... | 135 | 1 | 18·1 | 8·2 |
| 687 | 16 Bootis α (*Arcturus*) | May | 23 | R | 14 | 9 | 27·53 | ... | 70 | 6 | 29·8 | ... |
| | ... ... ... | ,, | 28 | R | | 9 | 27·51 | ... | | 6 | 29·5 | ... |
| | ... ... ... | June | 2 | R | | 9 | 27·58 | ... | | 6 | 30·5 | ... |
| | ... ... ... | ,, | 4 | R | | 9 | 27·52 | ... | | 6 | 29·6 | ... |
| | ... ... ... | ,, | 7 | R | | 9 | 27·54 | ... | | 6 | 29·5 | ... |
| | ... ... ... | ,, | 10 | M | | 9 | 27·60 | ... | | 6 | 31·1 | ... |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 688 | 100 Virginis λ ... | Apl. | 21 | R | 14 | 11 | 45·23 | ... | 102 | 44 | 35·4 | ... |
| | ... ... ... | „ | 22 | R | | 11 | 45·13 | ... | | 44 | 36·1 | ... |
| | ... ... ... | May | 18 | M | | 11 | 45·12 | ... | | 44 | 36·1 | ... |
| | ... ... ... | June | 15 | R | | 11 | 45·31 | ... | | 44 | 35·6 | ... |
| | ... ... ... | „ | 16 | R | | 11 | 45·15 | 5 | | 44 | 36·0 | ... |
| 689 | ... ... ... | May | 5 | R | 14 | 12 | 30·81 | ... | 136 | 49 | 53·7 | 9·6 |
| 690 | ... ... .. | May | 23 | R | 14 | 14 | 34·45 | 5 | 122 | 35 | 44·2 | 9·0 |
| | ... ... ... | June | 27 | M | | 14 | 34·30 | 4 | | 35 | 44·9 | 8·8 |
| 691 | ... ... ... | May | 14 | M | 14 | 15 | 19·50 | 6 | 122 | 11 | 35·6 | 8·7 |
| 692 | 6709 Taylor... ... | June | 3 | R | 14 | 15 | 58·65 | ... | 119 | 3 | 19·6 | 7·0 |
| 693 | 2 Libræ ... .. | Apl. | 22 | R | 14 | 16 | 6·76 | ... | 101 | 5 | 28·8 | ... |
| 694 | 5926 Lacaille ... | May | 28 | R | 14 | 16 | 40·24 | ... | 118 | 59 | 57·9 | 8·8 |
| | ... ... ... | June | 2 | R | | 16 | 40·19 | 4 | | 59 | 58·6 | 7·5 |
| | ... ... ... | „ | 7 | R | | 16 | 40·29 | 4 | | 59 | 58·1 | 8·5 |
| 695 | 6721 Taylor... ... | Apl. | 21 | R | 14 | 17 | 22·38 | 5 | 101 | 3 | 1·7 | ... |
| 696 | ... ... ... | June | 4 | R | 14 | 17 | 24·96 | ... | 123 | 13 | 23·0 | 10·0 |
| 697 | 6740 Taylor... ... | May | 24 | R | 14 | 19 | 5·13 | 4 | 133 | 42 | 56·5 | 7·2 |
| | ... ... ... | „ | 31 | R | | 19 | 5·10 | 5 | | 42 | 55·0 | 7·7 |
| | ... ... . | June | 29 | M | | 19 | 5·01 | ... | | 42 | 56·5 | 7·5 |
| 698 | ... ... ... | May | 28 | R | 14 | 21 | 57·61 | 4 | 122 | 33 | 58·6 | 9·3 |
| 699 | 5962 Lacaille ... | Apl. | 27 | R | 14 | 22 | 42·28 | ... | 129 | 46 | 44·0 | 7·5 |
| 700 | ... ... .. | June | 17 | R | 14 | 23 | 42·53 | ... | 136 | 54 | 23·6 | ... |
| 701 | ... ... .. | May | 23 | R | 14 | 24 | 12·79 | 5 | 123 | 48 | 36·4 | 8·8 |
| | ... ... ... | July | 1 | M | | 24 | 12·71 | ... | | 48 | 35·2 | 8·0 |
| 702 | 14634 O. A. N. ... | June | 16 | R | 14 | 25 | 51·40 | 3 | 20 | 8 | 24·1 | 7·0 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 703 | 25 Bootis ρ ... .. | May | 6 | R | 14 | 25 | 58·01 | ... | 59 | 1 | 48·8 | ... |
| | ... ... ... | ,, | 21 | M | | 25 | 58·18 | .. | | 1 | 48·4 | ... |
| | ... ... .. | ,, | 30 | R | | 25 | 58·01 | ... | | 1 | 49·5 | ... |
| | ... ... .. | ,, | 31 | R | | 25 | 58·11 | ... | | 1 | 49·5 | ... |
| | ... ... .. | June | 2 | R | | 25 | 58·01 | ... | | 1 | 49·3 | ... |
| | ... ... ... | ,, | 3 | R | | 25 | 57·99 | ... | | 1 | 49·2 | ... |
| | ... ... .. | ,, | 4 | R | | 25 | 58·07 | ... | | 1 | 49·3 | ... |
| | ... ... .. | ,, | 8 | R | | 25 | 58·10 | ... | | 1 | 49·7 | ... |
| 704 | 14652 O. A. N. .. | June | 16 | R | 14 | 27 | 1·13 | 4 | 20 | 6 | 57·6 | 8·5 |
| 705 | R Camelopardi Var. 1 | May | 5 | R | 14 | 28 | 9·31 | 1 | 5 | 33 | 16·5 | 10·8 |
| 706 | ... ... .. | May | 24 | R | 14 | 29 | 26·79 | ... | 124 | 55 | 30·2 | 8·0 |
| 707 | α² Centauri ... .. | June | 4 | R | 14 | 30 | 23·05 | ... | 150 | 16 | 24·1 | ... |
| | ... ... . | ,, | 15 | R | | 30 | 23·09 | ... | | 16 | 23·9 | ... |
| 708 | ... ... .. | May | 23 | R | 14 | 32 | 42·12 | ... | 121 | 44 | 17·9 | 8·3 |
| 709 | α Lupi ... .. | June | 3 | R | 14 | 32 | 54·02 | 4 | 136 | 48 | 6·9 | 5·8 |
| 710 | 36 Bootis ε ... ... | May | 18 | M | 14 | 39 | 2·87 | ... | 62 | 21 | 3·6 | ... |
| | ... ... .. | ,, | 28 | R | | 39 | 2·80 | ... | | 21 | 2·9 | ... |
| | ... ... .. | ,, | 30 | R | | 39 | 2·94 | ... | | 21 | 4·0 | ... |
| | ... ... .. | June | 3 | R | | 39 | 2·95 | 5 | | 21 | 4·7 | ... |
| | ... ... .. | ,, | 4 | R | | 39 | 2·81 | ... | | 21 | 3·7 | ... |
| | ... ... .. | ,, | 8 | R | | 39 | 2·87 | ... | | 21 | 4·1 | ... |
| | ... ... ... | ,, | 15 | R | | 39 | 2·79 | ... | | 21 | 3·7 | ... |
| | ... ... . | ,, | 16 | R | | 39 | 2·76 | ... | | 21 | 3·1 | ... |
| | ... ... .. | ,, | 17 | R | | 39 | 2·83 | ... | | 21 | 3·4 | ... |
| | ... ... .. | ,, | 24 | M | | 39 | 2·81 | ... | | 21 | 3·8 | ... |
| | ... ... .. | July | 7 | R | | 39 | 2·79 | ... | | 21 | 3·2 | ... |
| 711 | ... ... . | May | 21 | M | 14 | 39 | 20·33 | 5 | 124 | 9 | 35·2 | 7·7 |
| | ... ... . | June | 2 | R | | 39 | 20·47 | ... | | 9 | 34·9 | 7·7 |
| 712 | ... ... . | May | 2 | R | 14 | 42 | 24·90 | 5 | 129 | 6 | 51·0 | 8·8 |
| | ... ... .. | ,, | 23 | R | | 42 | 24·77 | ... | | 6 | 50·3 | 8·7 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 713 | 9 Libræ α² ... ... | Apl. | 22 | R | 14 | 43 | 21·42 | ... | 105 | 28 | 28·2 | ... |
| | ... ... ... | May | 19 | M | | 43 | 21·52 | ... | | 28 | 28·1 | |
| | ... ... ... | „ | 20 | M | | 43 | 21·53 | .. | | 28 | 28·9 | |
| | ... ... .. | June | 3 | R | | 43 | 21·46 | | | 28 | 28·0 | .. |
| | ... ... ... | „ | 4 | R | | 43 | 21·50 | ... | | 28 | 28·4 | ... |
| | ... ... .. | „ | 7 | R | | 43 | 21·53 | ... | | 28 | 27·9 | |
| | ... ... ... | „ | 14 | M | | 43 | 21·57 | ... | | 28 | 27·7 | ... |
| | ... ... ... | „ | 15 | R | | 43 | 21·57 | .. | | 28 | 28·2 | .. |
| | ... ... .. | „ | 17 | R | | 43 | 21·57 | ... | | 28 | 27·6 | |
| | . .. ... | „ | 18 | R | | 44 | 21·58 | .. | | 28 | 28·1 | |
| | .. ... .. | „ | 24 | M | | 43 | 21·47 | 2 | | 28 | 27·6 | |
| | ... ... .. | July | 7 | R | | 43 | 21·53 | .. | | 28 | 27·5 | ... |
| 714 | 7 Ursæ Min. β Var. 1 | May | 28 | R | 14 | 51 | 8·11 | 5 | 15 | 17 | 19·1 | . |
| 715 | ... ... | May | 23 | R | 14 | 51 | 23·24 | 5 | 39 | 19 | 38·3 | 9·1 |
| 716 | ... ... .. | June | 27 | M | 14 | 51 | 35·46 | ... | 123 | 12 | 43·3 | 9·0 |
| 717 | 6991 Taylor ... ... | May | 21 | M | 14 | 51 | 52·67 | . | 39 | 48 | 49·7 | 6·4 |
| 718 | 15004 O. A. N. ... | May | 23 | R | 14 | 53 | 52·88 | 5 | 39 | 21 | 3·3 | 7·5 |
| 719 | 15023 O. A. N. ... | June | 16 | R | 14 | 55 | 39·47 | 5 | 27 | 17 | 28·9 | 7·5 |
| 720 | 43 Bootis ψ ... . | May | 18 | M | 14 | 58 | 37·09 | .. | 62 | 31 | 15·0 | ... |
| | ... ... ... | „ | 28 | R | | 58 | 37·04 | .. | | 31 | 13·7 | .. |
| | ... ... .. | „ | 31 | R | | 58 | 37·16 | ... | | 31 | 13·6 | .. |
| | ... .. | June | 7 | R | | 58 | 37·05 | | | 31 | 14·6 | |
| | ... ... .. | „ | 8 | R | | 58 | 37·12 | | | 31 | 14·8 | |
| | ... ... . | „ | 15 | R | | 58 | 37·02 | .. | | 31 | 13·9 | ... |
| | .. .. .. | „ | 18 | R | | 58 | 37·08 | .. | | 31 | 14·1 | .. |
| | ... .. ... | July | 8 | M | | 58 | 37·10 | ... | | 31 | 14·6 | |
| 721 | 7079 Taylor ... .. | June | 27 | M | 15 | 3 | 19·98 | .. | 123 | 7 | 14·8 | 6·7 |
| 722 | 15138 O. A. N. . | May | 25 | R | 15 | 4 | 7·39 | .. | 43 | 0 | 6·3 | 9·2 |
| 723 | 24 Libræ ι¹ ... .. | May | 19 | M | 15 | 4 | 28·20 | | 100 | 16 | 28·8 | . |
| | ... ... .. | „ | 20 | M | | 4 | 28·32 | 3 | | 16 | 29·4 | |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ' | " | |
| 724 | 111 R. P. L. ... .. | May | 21 | M | 15 | 5 | 45·19 | 3 | 5 | 31 | 23·7 | .. |
| 725 | 27 Libræ β .. | Apl. | 22 | R | 15 | 9 | 41·44 | ... | 98 | 52 | 43·6 | ... |
| | ... | June | 10 | M | | 9 | 41·49 | .. | | 52 | 44·6 | ... |
| | ... .. .. | ,, | 15 | R | | 9 | 41·52 | 5 | | 52 | 42·7 | ... |
| | ... ... | ,, | 16 | R | | 9 | 41·45 | .. | | 52 | 43·3 | ... |
| | ... ... . | ,, | 30 | M | | 9 | 41·46 | ... | | 52 | 43·6 | ... |
| | ... ... .. | July | 4 | M | | 9 | 41·32 | ... | | 52 | 43·5 | ... |
| | .. .. | ,, | 11 | M | | 9 | 41·39 | ... | | 52 | 43·9 | ... |
| 726 | .. ... ... | May | 25 | R | 15 | 14 | 12·39 | ... | 123 | 7 | 30·8 | 9·5 |
| 727 | ... ... .. | June | 16 | R | 15 | 20 | 23·60 | ... | 130 | 8 | 35·3 | 8·7 |
| | ... ... . | ,, | 27 | M | | 20 | 23·57 | 5 | | 8 | 34·3 | 8·8 |
| | .. ... | July | 1 | M | | 20 | 23·53 | ... | | 8 | 34·4 | 8·7 |
| 728 | 32 Libræ ξ¹ ... ... | June | 17 | R | 15 | 20 | 35·48 | ... | 106 | 14 | 22·2 | ... |
| 729 | ... .. ... | May | 25 | R | 15 | 21 | 40·06 | 5 | 129 | 25 | 58·8 | 7·5 |
| 730 | XV 305 W. B. E. ... | July | 9 | M | 15 | 21 | 58·56 | ... | 101 | 15 | 29·5 | 8·9 |
| | .. ... .. | ,, | 25 | R | | 21 | 58·55 | 5 | | 15 | 31·5 | 8·8 |
| 731 | 114 R. P. L. ... s.p. | Dec. | 20 | R | 15 | 22 | 29·01 | 2 | 2 | 14 | 59·0 | ... |
| 732 | XV 429 W. B. E. | July | 22 | R | 15 | 24 | 2·45 | ... | 101 | 28 | 29·1 | 9·2 |
| | ... ... | ,, | 25 | R | | 24 | 2·69 | 4 | | 28 | 30·8 | 9·5 |
| 733 | 7240 Taylor ... .. | May | 13 | M | 15 | 24 | 24·18 | ... | 130 | 1 | 28·8 | 7·5 |
| 734 | 3394 Radcliffe .. | June | 18 | R | 15 | 25 | 3·61 | 5 | 41 | 49 | 6·2 | 8·0 |
| 735 | 38 Libræ γ ... ... | Apl. | 22 | R | 15 | 27 | 55·18 | 6 | 104 | 20 | 0·5 | ... |
| | ... .. ... | ,, | 23 | R | | 27 | 55·20 | ... | | 20 | 0·6 | ... |
| | ... .. | June | 16 | R | | 27 | 55·37 | 4 | | 19 | 59·9 | ... |
| | ... ... . | ,, | 17 | R | | 27 | 55·31 | ... | | 19 | 59·5 | ... |
| 736 | 5 Coronæ Borealis α ... | June | 3 | R | 15 | 28 | 55·75 | ... | 62 | 49 | 23·1 | ... |
| | ... ... ... | ,, | 29 | M | | 28 | 55·88 | ... | | 49 | 23·7 | ... |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | | ° | ′ | ″ | |
| 736 | 5 Coronæ Borealis α ... | June 30 | M | 15 | 28 | 55·82 | ... | 62 | 49 | 32·9 | ... |
| | ... ... ... | July 4 | M | | 28 | 55·78 | ... | | 49 | 34·0 | ... |
| | ... ... ... | „ 8 | M | | 28 | 55·82 | ... | | 49 | 34·2 | ... |
| 737 | ... ... ... | June 4 | R | 15 | 29 | 12·53 | 5 | 119 | 40 | 28·0 | 9·8 |
| 738 | ... ... ... | May 25 | R | 15 | 30 | 9·95 | 5 | 129 | 33 | 27·5 | 9·0 |
| 739 | 28530 Lalande ... | June 18 | R | 15 | 31 | 50·66 | ... | 47 | 25 | 19·7 | 9·5 |
| 740 | XV 645 W. B. E. .. | June 17 | R | 15 | 34 | 22·72 | ... | 102 | 19 | 14·3 | ... |
| | ... ... ... | „ 27 | M | | 34 | 22·49 | 4 | | 19 | 15·7 | 8·2 |
| | ... ... ... | „ 29 | M | | 34 | 22·52 | 4 | | 19 | 18·6 | 8·1 |
| 741 | XV 675 W. B. E. .. | June 7 | R | 15 | 35 | 56·53 | 5 | 102 | 41 | 26·2 | 9·3 |
| | ... ... ... | July 1 | M | | 35 | 56·31 | ... | | 41 | 26·5 | 9·1 |
| | ... ... ... | „ 4 | M | | 35 | 56·45 | 3 | | 41 | 27·2 | 9·3 |
| 742 | 24 Serpentis α ... | Apl. 23 | R | 15 | 37 | 34·26 | ... | 83 | 8 | 38·6 | ... |
| | ... ... ... | June 16 | R | | 37 | 34·20 | ... | | 8 | 39·4 | ... |
| | ... ... ... | „ 30 | M | | 37 | 34·13 | ... | | 8 | 39·3 | ... |
| | ... ... ... | July 7 | R | | 37 | 34·15 | ... | | 8 | 38·9 | ... |
| | ... ... ... | „ 8 | M | | 37 | 34·18 | ... | | 8 | 39·7 | ... |
| | ... ... ... | „ 11 | M | | 37 | 34·15 | ... | | 8 | 39·2 | ... |
| | ... ... ... | „ 22 | R | | 37 | 34·20 | ... | | 8 | 38·9 | ... |
| 743 | ... ... ... | May 25 | R | 15 | 41 | 26·70 | ... | 62 | 3 | 16·3 | 9·2 |
| | ... ... ... | „ 28 | R | | 41 | 26·74 | ... | | 3 | 16·2 | 9·7 |
| 744 | ... ... ... | May 23 | R | 15 | 42 | 32·18 | 4 | 61 | 46 | 38·9 | 10·0 |
| 745 | R Serpentis Var. 2 ... | July 1 | M | 15 | 44 | 25·44 | 5 | 74 | 27 | 6·7 | 7·4 |
| 746 | 3462 Radcliffe ... | June 18 | R | 15 | 46 | 28·61 | ... | 47 | 1 | 30·6 | 8·0 |
| 747 | 28970 Lalande ... | July 23 | R | 15 | 47 | 57·96 | 5 | 70 | 49 | 3·7 | 7·8 |
| 748 | 28980 Lalande ... | May 26 | R | 15 | 48 | 54·38 | ... | 104 | 25 | 44·3 | ... |
| | ... ... .. | July 9 | M | | 48 | 54·48 | ... | | 25 | 44·9 | 6·1 |
| | ... ... ... | „ 11 | M | | 48 | 54·25 | ... | | 25 | 41·8 | 6·1 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 749 | 16 Ursæ Minoris ζ ... | June | 4 | R | 15 | 48 | 59·52 | 5 | 11 | 47 | 18·8 | ... |
| | ... ... ... | July | 22 | R | | 48 | 59·57 | 5 | | 47 | 20·7 | ... |
| 750 | ... ... ... | May | 31 | R | 15 | 49 | 24·75 | 5 | 103 | 59 | 0·0 | 8·9 |
| | ... .. ... | July | 2 | M | | 49 | 24·78 | ... | | 59 | 0·4 | 9·0 |
| | ... ... .. | ,, | 25 | R | | 49 | 24·63 | 3 | | 59 | 2·6 | ... |
| 751 | 29054 Lalande ... | June | 2 | R | 15 | 50 | 30·71 | 5 | 104 | 3 | 35·5 | 7·8 |
| | ... ... .. | ,, | 3 | R | | 50 | 30·60 | 5 | | 3 | 35·6 | 8·9 |
| | ... ... ... | ,, | 7 | R | | 50 | 30·71 | ... | | 3 | 35·3 | 9·0 |
| 752 | 8 Scorpii β¹ ... .. | Apl. | 23 | R | 15 | 57 | 31·91 | ... | 109 | 25 | 47·8 | ... |
| | ... ... ... | May | 20 | M | | 57 | 31·90 | ... | | 25 | 49·5 | ... |
| | ... ... .. | ,, | 21 | M | | 57 | 31·87 | ... | | 25 | 47·1 | ... |
| | ... ... .. | June | 27 | M | | 57 | 31·96 | ... | | 25 | 49·1 | ... |
| | ... ... ... | ,, | 28 | M | | 57 | 31·96 | ... | | 25 | 48·5 | ... |
| | ... ... ... | July | 4 | M | | 57 | 31·91 | ... | | 25 | 49·2 | ... |
| | ... ... .. | ,, | 25 | R | | 57 | 32·05 | 5 | | 25 | 49·5 | ... |
| 753 | ... ... ... | May | 25 | R | 15 | 59 | 58·63 | 5 | 105 | 16 | 21·9 | 8·2 |
| | ... ... ... | ,, | 28 | R | | 59 | 58·57 | 5 | | 16 | 22·7 | 8·5 |
| | ... ... ... | July | 1 | M | | 59 | 58·43 | 5 | | 16 | 21·8 | 8·2 |
| 754 | 15281 O. A. S. ... | May | 23 | R | 16 | 0 | 58·50 | 6 | 105 | 43 | 43·4 | 9·3 |
| | ... ... .. | ,, | 31 | R | | 0 | 58·49 | 6 | | 43 | 43·4 | 9·3 |
| | ... ... ... | June | 2 | R | | 0 | 58·43 | 5 | | 43 | 42·7 | 9·4 |
| 755 | 14 Scorpii ν ... ... | Apl. | 23 | R | 16 | 4 | 5·58 | 4 | 109 | 6 | 15·5 | ... |
| | ... ... .. | May | 20 | M | | 4 | 5·77 | ... | | 6 | 15·9 | ... |
| 756 | 116 R. P. L. ... s. p. | Jan. | 4 | M | 16 | 4 | 43·76 | 5 | 4 | 18 | 40·2 | ... |
| 757 | 15412 O. A. S. ... | May | 28 | R | 16 | 6 | 18·76 | 6 | 106 | 3 | 7·9 | 9·5 |
| | ... ... .. | June | 3 | R | | 6 | 18·47 | ... | | 3 | 7·8 | 9·5 |
| | ... ... ... | ,, | 7 | R | | 6 | 18·53 | ... | | 3 | 7·6 | 9·0 |
| 758 | 15418 O. A. S. ... | May | 25 | R | 16 | 6 | 30·88 | ... | 106 | 11 | 31·1 | 8·5 |
| | ... ... ... | ,, | 31 | R | | 6 | 30·99 | ... | | 11 | 30·5 | 8·8 |
| | .. ... .. | July | 4 | M | | 6 | 30·85 | 5 | | 11 | 31·8 | 8·8 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 759 | 1 Ophiuchi δ... ... | June | 16 | R | 16 | 7 | 13·18 | ... | 93 | 20 | 30·6 | .. |
| | ... ... .. | „ | 27 | M | | 7 | 13·17 | ... | | 20 | 30·3 | ... |
| | ... ... ... | „ | 28 | M | | 7 | 13·29 | ... | | 20 | 30·2 | .. |
| | ... ... ... | „ | 29 | M | | 7 | 13·24 | ... | | 20 | 30·6 | .. |
| | ... ... ... | July | 22 | R | | 7 | 13·21 | ... | | 20 | 30·8 | ... |
| 760 | 15514 O. A. S. .. | May | 25 | R | 16 | 12 | 46·68 | ... | 106 | 45 | 5·7 | 8·7 |
| | ... ... ... | „ | 23 | R | | 12 | 46·76 | 5 | | 45 | 6·8 | 8·7 |
| | ... ... .. | „ | 31 | R | | 12 | 46·76 | .. | | 45 | 6·4 | 8·7 |
| 761 | 20 Scorpii σ ... | Apl. | 23 | R | 16 | 12 | 55·49 | ... | 115 | 15 | 47·0 | ... |
| | ... ... ... | June | 17 | R | | 12 | 55·60 | ... | | 15 | 47·1 | ... |
| | ... ... ... | „ | 18 | R | | 12 | 55·47 | ... | | 15 | 48·0 | .. |
| 762 | 15552 O. A. S. ... | July | 1 | M | 16 | 13 | 13·89 | 3 | 107 | 22 | 1·0 | 9·2 |
| 763 | ... ... ... | June | 16 | R | 16 | 15 | 46·22 | ... | 128 | 7 | 41·2 | 8·9 |
| 764 | 21 Scorpii α (*Antares*) | Apl. | 23 | R | 16 | 21 | 4·29 | ... | 116 | 7 | 37·1 | .. |
| | ... ... .. | June. | 7 | R | | 21 | 4·35 | ... | | 7 | 36·7 | ... |
| | ... ... ... | „ | 17 | R | | 21 | 4·32 | ... | | 7 | 37·2 | .. |
| | ... ... ... | „ | 18 | R | | 21 | 4·31 | ... | | 7 | 36·2 | ... |
| | ... ... ... | „ | 27 | M | | 21 | 4·33 | ... | | 7 | 36·9 | .. |
| | ... ... ... | „ | 28 | M | | 21 | 4·30 | ... | | 7 | 36·7 | ... |
| | ... ... ... | „ | 29 | M | | 21 | 4·30 | ... | | 7 | 37·2 | .. |
| | ... ... ... | „ | 30 | M | | 21 | 4·31 | ... | | 7 | 37·3 | .. |
| | ... ... ... | July | 22 | R | | 21 | 4·28 | ... | | 7 | 36·4 | .. |
| | .. ... ... | „ | 23 | R | | 21 | 4·42 | ... | | 7 | 37·0 | .. |
| 765 | 30 Herculis g Var. 5.. | June | 16 | R | 16 | 24 | 10·48 | ... | 47 | 49 | 3·4 | 5·5 |
| 766 | 13 Ophiuchi ζ ... | July | 18 | R | 16 | 29 | 40·28 | ... | 100 | 17 | 19·7 | .. |
| 767 | 5784 Brisbane .. | May | 25 | R | 16 | 30 | 54·60 | 5 | 150 | 39 | 26·0 | 9·5 |
| 768 | 40 Herculis ζ .. | June | 21 | R | 16 | 36 | 9·62 | ... | 58 | 8 | 57·3 | ... |
| | .. .. ... | July | 1 | M | | 36 | 9·53 | ... | | 8 | 57·2 | ... |
| | ... ... .. | „ | 4 | M | | 36 | 9·71 | ... | | 8 | 58·1 | ... |
| | ... . .. | „ | 11 | M | | 36 | 9·65 | ... | | 8 | 58·3 | ... |
| | ... ... .. | „ | 18 | R | | 36 | 9·57 | ... | | 8 | 57·1 | ... |

## *Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension, 1864. | | | No. of Wires. | Mean Polar Distance, 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 768 | 40 Herculis ζ .. | July | 23 | R | 16 | 36 | 9·57 | . | 58 | 8 | 56·7 | ... |
| | ... ... ... | ,, | 25 | R | | 36 | 9·53 | .. | | 8 | 57·0 | ... |
| 769 | ... .. .. | June | 4 | R | 16 | 44 | 32·56 | 5 | 75 | 16 | 44·4 | 10·0 |
| 770 | 27 Ophiuchi κ ... | June | 28 | M | 16 | 51 | 13·85 | ... | 80 | 24 | 39·3 | ... |
| | .. ... ... | ,, | 29 | M | | 51 | 13·77 | ... | | 24 | 40·8 | ... |
| | ... ... ... | July | 18 | R | | 51 | 13·78 | ... | | 24 | 40·2 | ... |
| | ... .. ... | ,, | 25 | R | | 51 | 13·84 | ... | | 24 | 40·4 | ... |
| | ... ... ... | Aug. | 5 | M | | 51 | 13·85 | ... | | 24 | 39·4 | ... |
| | ... .. .. | ,, | 8 | M | | 51 | 13·80 | ... | | 24 | 40·6 | ... |
| | ... ... ... | ,, | 13 | M | | 51 | 13·85 | ... | | 24 | 39·4 | ... |
| 771 | 16232 O. A. S. ... | July | 22 | R | 16 | 53 | 57·53 | 5 | 110 | 14 | 43·5 | 9·8 |
| 772 | 16233 O. A. S. ... | July | 11 | M | 16 | 53 | 58·62 | ... | 110 | 23 | 35·0 | 8·0 |
| 773 | ... ... .. | June | 4 | R | 16 | 55 | 15·87 | ... | 109 | 56 | 33·8 | 7·7 |
| 774 | 22 Ursæ Minoris ε s.p. | Feb. | 9 | M | 17 | 0 | 1·71 | 5 | 7 | 44 | 43·4 | .. |
| | ... . ... | June | 16 | R | | 0 | 1·59 | 5 | | 44 | 39·4 | .. |
| | ... ... ... | July | 18 | R | | 0 | 1·38 | 5 | | 44 | 40·8 | .. |
| | ... ... ... | Aug. | 8 | M | | 0 | 1·53 | 3 | | 44 | 40·2 | ... |
| | .. ... .. | ,, | 11 | M | | 0 | 1·04 | 3 | | 44 | 39·8 | . |
| | ... ... s.p. | Dec. | 15 | R | | 0 | 1·20 | 6 | | 44 | 41·6 | ... |
| 775 | 35 Ophiuchi η .. | May | 21 | M | 17 | 2 | 34·87 | .. | 105 | 33 | 9·1 | ... |
| | ... ... ... | June | 18 | R | | 2 | 34·86 | 4 | | 33 | 11·5 | — |
| 776 | ... ... ... | July | 22 | R | 17 | 5 | 44·18 | ... | 130 | 50 | 23·7 | 9·0 |
| 777 | 64 Herculis α Var. 1.. | June | 21 | R | 17 | 8 | 26·73 | .. | 75 | 27 | 8·5 | ... |
| | ... ... ... | July | 1 | M | | 8 | 26·78 | ... | | 27 | 8·8 | — |
| | ... ... ... | ,, | 11 | M | | 8 | 26·76 | .. | | 27 | 9·4 | — |
| | .. ... ... | ,, | 18 | R | | 8 | 26·78 | ... | | 27 | 7·8 | .. |
| | ... ... .. | ,, | 21 | R | | 8 | 26·80 | .. | | 27 | 7·0 | ... |
| | .. .. ... | ,, | 26 | R | | 8 | 26·73 | .. | | 27 | 7·2 | .. |
| | ... ... ... | Aug. | 5 | M | | 8 | 26·72 | .. | | 27 | 9·0 | .. |
| | . ... .. | ,, | 12 | M | | 8 | 26·83 | .. | | 27 | 8·7 | .. |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 778 | ... ... ... | June | 29 | M | 17 | 9 | 1·79 | ... | 124 | 4 | 16·2 | 8·2 |
| 779 | ... ... ... | July | 22 | R | 17 | 11 | 57·45 | ... | 130 | 27 | 39·3 | 9·8 |
| 780 | 8017 Taylor ... ... | May | 21 | M | 17 | 13 | 21·31 | 3 | 114 | 45 | 54·2 | ... |
| | ... ... .. | June | 17 | R | | 13 | 21·22 | ... | | 45 | 55·4 | ... |
| | ... ... ... | Aug. | 15 | M | | 13 | 21·16 | ... | | 45 | 54·1 | 6·7 |
| 781 | 42 Ophiuchi θ ... | June | 18 | R | 17 | 13 | 39·55 | .. | 114 | 51 | 35·7 | .. |
| | ... ... ... | July | 21 | R | | 13 | 39·49 | 5 | | 51 | 37·1 | .. |
| | ... ... ... | " | 26 | R | | 13 | 39·54 | ... | | 51 | 36·3 | ... |
| | ... ... ... | Aug. | 5 | M | | 13 | 39·65 | ... | | 51 | 37·0 | ... |
| | ... ... ... | " | 13 | M | | 13 | 39·41 | ... | | 51 | 36·0 | ... |
| 782 | 44 Ophiuchi b ... | Aug. | 13 | M | 17 | 18 | 3·97 | ... | 114 | 2 | 48·4 | 5·0 |
| 783 | δ Aræ ... ... ... | June | 17 | R | 17 | 18 | 49·75 | ... | 150 | 33 | 54·6 | ... |
| | ... ... ... | July | 1 | M | | 18 | 49·58 | 3 | | 33 | 56·7 | 6·7 |
| 784 | ... ... ... | July | 22 | R | 17 | 21 | 22·44 | 5 | 130 | 32 | 55·8 | 8·3 |
| 785 | ... ... ... | Aug. | 15 | M | 17 | 21 | 22·60 | 5 | 130 | 50 | 57·0 | 8·4 |
| 786 | ... ... .. | July | 11 | M | 17 | 28 | 25·06 | ... | 125 | 14 | 39·7 | 8·7 |
| 787 | 55 Ophiuchi α .. | June | 21 | R | 17 | 28 | 37·28 | ... | 77 | 20 | 18·1 | ... |
| | ... ... ... | July | 1 | M | | 28 | 37·21 | ... | | 20 | 18·6 | ... |
| | ... ... ... | " | 26 | R | | 28 | 37·23 | ... | | 20 | 17·9 | ... |
| | .. ... ... | Aug. | 5 | M | | 28 | 37·23 | ... | | 20 | 18·5 | ... |
| | ... ... ... | " | 8 | M | | 28 | 37·27 | ... | | 20 | 19·1 | ... |
| 788 | ... ... ... | July | 22 | R | 17 | 29 | 22·89 | ... | 130 | 56 | 24·1 | 8·9 |
| 789 | .. ... ... | July | 22 | R | 17 | 34 | 34·46 | 5 | 126 | 15 | 0·4 | 9·3 |
| 790 | ... ... ... | July | 22 | R | 17 | 39 | 16·94 | 5 | 127 | 17 | 24·4 | 9·8 |
| 791 | ... ... .. | July | 18 | R | 17 | 39 | 43·84 | ... | 127 | 14 | 30·4 | 8·5 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 792 | 86 Herculis μ .. | July | 1 | M | 17 | 41 | 8·23 | ... | 62 | 11 | 52·5 | ... |
| | .. ... . | Aug. | 12 | M | | 41 | 8·16 | ... | | 11 | 52·2 | ... |
| 793 | 31 Draconis ψ¹ (1st) | June | 18 | R | 17 | 44 | 22·18 | ... | 17 | 47 | 6·9 | 6·5 |
| 794 | .. ... .. | Aug. | 9 | M | 17 | 45 | 2·69 | ... | 128 | 47 | 39·5 | 8·9 |
| 795 | 7504 Lacaille .. | Aug. | 8 | M | 17 | 48 | 32·17 | ... | 129 | 7 | 45·6 | 7·0 |
| 796 | ... ... .. | July | 22 | R | 17 | 50 | 25·24 | ... | 130 | 50 | 22·0 | 8·8 |
| | ... ... .. | ,, | 25 | R | | 50 | 25·27 | 5 | | 50 | 23·5 | 9·0 |
| | .. ... .. | Aug. | 5 | M | | 50 | 25·08 | 6 | | 50 | 22·4 | 8·4 |
| 797 | 7518 Lacaille . | Aug. | 15 | M | 17 | 52 | 43·11 | 3 | 149 | 12 | 14·6 | 7·0 |
| 798 | 33 Draconis γ ... | Aug. | 12 | M | 17 | 53 | 26·01 | ... | 38 | 29 | 39·1 | ... |
| 799 | 8355 Taylor ... .. | Aug. | 9 | M | 17 | 56 | 59·84 | ... | 133 | 25 | 39·0 | 5·5 |
| 800 | .. ... ... | July | 25 | R | 18 | 1 | 13·86 | ... | 131 | 43 | 35·8 | 9·7 |
| | .. ... .. | Aug. | 5 | M | | 1 | 13·65 | ... | | 43 | 34·1 | 8·7 |
| 801 | .. ... .. | July | 25 | R | 18 | 2 | 49·27 | 5 | 131 | 44 | 29·2 | 9·0 |
| 802 | T Herculis Var. 4 .. | Aug. | 10 | R | 18 | 3 | 57·37 | ... | 58 | 59 | 52·7 | 8·2 |
| 803 | 13 Sagittarii μ¹ .. | Aug. | 8 | M | 18 | 5 | 37·79 | ... | 111 | 5 | 26·2 | .. |
| | .. ... .. | ,, | 9 | M | | 5 | 37·76 | ... | | 5 | 27·7 | ... |
| | .. ... .. | ,, | 12 | M | | 5 | 37·68 | ... | | 5 | 28·3 | ... |
| | .. ... .. | ,, | 15 | M | | 5 | 37·75 | ... | | 5 | 28·6 | ... |
| 804 | 15 Sagittarii .. | Aug. | 13 | M | 18 | 7 | 6·02 | ... | 110 | 45 | 54·7 | 5·0 |
| 805 | 8461 Taylor ... ... | Aug. | 15 | M | 18 | 14 | 24·47 | ... | 134 | 10 | 24·8 | 6·1 |
| 806 | 23 Ursæ Minoris δ s.p. | Feb. | 11 | M | 18 | 16 | 13·73 | 3 | 8 | 23 | 45·3 | ... |
| | .. ... s.p. | ,, | 15 | M | | 16 | 13·32 | 3 | | 23 | 44·3 | ... |
| | ... ... s.p. | ,, | 16 | R | | 16 | 13·35 | 3 | | 23 | 48·6 | ... |
| | ... ... ... | Aug. | 16 | R | | 16 | 13·02 | 3 | | 23 | 47·9 | ... |
| | .. .. s.p. | Dec. | 15 | R | | 16 | 13·53 | 3 | | 23 | 47·1 | ... |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | | ° | ′ | ″ | |
| 807 | 21 Sagitarii ... ... | Aug. 13 | M | 18 | 17 | 14·94 | ... | 110 | 36 | 40·7 | 5·0 |
| 808 | $\delta^2$ Telescopii ... | July 18 | R | 18 | 21 | 58·12 | 5 | 135 | 50 | 44·8 | 6·7 |
| | ... ... ... | Aug. 15 | M | | 21 | 58·25 | 5 | | 50 | 47·2 | 6·3 |
| 809 | ... ... ... | July 25 | R | 18 | 22 | 51·47 | 5 | 135 | 15 | 54·9 | 9·0 |
| 810 | θ Coronæ Australis ... | Aug. 20 | R | 18 | 23 | 47·14 | ... | 132 | 24 | 22·3 | 6·0 |
| 811 | 3 Lyræ α (*Vega*) .. | Aug. 8 | M | 18 | 32 | 20·05 | ... | 51 | 20 | 29·0 | ... |
| | ... ... ... | " 9 | M | | 32 | 19·95 | ... | | 20 | 29·6 | ... |
| | ... ... ... | " 12 | M | | 32 | 19·94 | .. | | 20 | 28·9 | ... |
| | ... ... ... | " 15 | M | | 32 | 19·95 | ... | | 20 | 29·4 | ... |
| 812 | R. Scuti Var. 1 ... | Aug. 22 | R | 18 | 40 | 13·20 | ... | 95 | 50 | 53·3 | 6·0 |
| 813 | 7872 Lacaille ... | Aug. 20 | R | 18 | 42 | 20·14 | 5 | 136 | 45 | 1·7 | 6·0 |
| 814 | 7878 Lacaille ... | Aug. 20 | R | 18 | 42 | 53·19 | 4 | 136 | 44 | 39·6 | 7·0 |
| 815 | 10 Lyræ β Var 1 ... | Aug. 23 | R | 18 | 45 | 3·46 | ... | 56 | 47 | 36·4 | ... |
| | ... ... ... | " 29 | R | | 45 | 3·37 | ... | | 47 | 36·6 | ... |
| | ... ... ... | Sep. 9 | M | | 45 | 3·40 | ... | | 47 | 36·5 | ... |
| 816 | ... ... ... | Aug. 26 | R | 18 | 46 | 54·04 | — | 137 | 44 | 56·1 | 9·7 |
| 817 | 37 Sagitarii $\xi^2$ ... | July 18 | R | 18 | 49 | 36·78 | ... | 111 | 16 | 55·7 | ... |
| 818 | 13 Lyræ Var. 2 ... | Aug. 12 | M | 18 | 51 | 11·38 | ... | 46 | 13 | 54·3 | ... |
| 819 | ... ... ... | July 18 | R | 18 | 54 | 10·28 | 6 | 122 | 56 | 13·2 | 8·3 |
| | ... ... ... | Aug. 29 | R | | 54 | 10·57 | ... | | 56 | 13·0 | 7·5 |
| 820 | ... ... ... | Aug. 16 | R | 18 | 57 | 17·47 | 5 | 111 | 21 | 9·2 | 9·9 |
| | ... ... ... | " 22 | R | | 57 | 17·37 | 5 | | 21 | 8·6 | 10·0 |
| 821 | 17 Aquilæ 3 ... ... | Aug. 9 | M | 18 | 59 | 9·49 | — | 76 | 20 | 11·5 | ... |
| | ... ... ... | " 11 | M | | 59 | 9·43 | ... | | 20 | 11·5 | ... |
| | ... ... .. | " 29 | R | | 59 | 9·46 | ... | | 20 | 11·2 | ... |

## *Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 821 | 17 Aquilæ ζ .. | Aug. | 31 | R | 18 | 59 | 9·37 | 5 | 76 | 20 | 12·2 | ... |
| | ... ... .. | Sep. | 2 | M | | 59 | 9·54 | ... | | 20 | 12·0 | ... |
| | ... ... .. | „ | 9 | M | | 59 | 9·42 | ... | | 20 | 10·7 | ... |
| | ... ... ... | „ | 10 | M | | 59 | 9·44 | ... | | 20 | 12·5 | ... |
| 822 | ... ... ... | Aug. | 5 | M | 19 | 0 | 51·71 | ... | 82 | 1 | 34·1 | ... |
| 823 | 41 Sagitarii π ... | July | 18 | R | 19 | 1 | 40·55 | ... | 111 | 14 | 4·9 | ... |
| 824 | ... ... ... | Aug. | 24 | R | 19 | 3 | 6·08 | 5 | 139 | 22 | 42·7 | 9·0 |
| 825 | ... ... .. | July | 11 | M | 19 | 3 | 13·46 | ... | 122 | 51 | 5·7 | 8·0 |
| | ... ... ... | Aug. | 8 | M | | 3 | 13·51 | ... | | 51 | 6·4 | 8·0 |
| 826 | T Sagitarii Var. 3 ... | Aug. | 8 | M | 19 | 8 | 23·15 | ... | 107 | 12 | 22·4 | 7·9 |
| | ... ... ... | „ | 11 | M | | 8 | 23·18 | ... | | 12 | 24·1 | 7·9 |
| | ... ... .. | „ | 12 | M | | 8 | 23.23 | ... | | 12 | 22·2 | 8·0 |
| | ... ... ... | „ | 13 | M | | 8 | 23·15 | 5 | | 12 | 22·4 | 8·1 |
| 827 | R Sagitarii Var. 1 .. | Aug. | 26 | R | 19 | 8 | 42·57 | 5 | 109 | 27 | 48·4 | 10·0 |
| 828 | ... ... ... | Aug. | 23 | R | 19 | 9 | 6·37 | 5 | 109 | 32 | 47·9 | 9·5 |
| 829 | 43 Sagitarii d ... | Aug. | 15 | M | 19 | 9 | 40·56 | ... | 109 | 11 | 30·8 | 5·0 |
| 830 | ... ... .. | Sep. | 12 | M | 19 | 10 | 0·19 | 6 | 107 | 9 | 40·9 | 8·1 |
| 831 | 25 Aquilæ ω ... ... | Aug. | 9 | M | 19 | 11 | 25·79 | ... | 78 | 38 | 50·7 | ... |
| | ... ... ... | „ | 16 | R | | 11 | 25·84 | ... | | 38 | 51·3 | ... |
| | ... ... .. | „ | 29 | R | | 11 | 25·96 | 5 | | 38 | 51·0 | ... |
| | ... ... ... | „ | 31 | R | | 11 | 25·92 | ... | | 38 | 50·8 | ... |
| 832 | 44 Sagitarii ρ¹ ... | Aug. | 15 | M | 19 | 13 | 46·80 | ... | 108 | 6 | 1·0 | ... |
| 833 | ... ... ... | June | 26 | R | 19 | 16 | 34·39 | ... | 129 | 52 | 46·3 | 8·0 |
| | ... ... ... | Sep | 13 | M | | 16 | 34·32 | ... | | 52 | 46·7 | 8·2 |
| | ... ... ... | „ | 14 | M | | 16 | 34·45 | ... | | 52 | 46·9 | 8·3 |
| 834 | 30 Aquilæ δ ... ... | Aug. | 13 | M | 19 | 18 | 38·37 | ... | 87 | 9 | 14·1 | ... |
| | ... ... ... | „ | 16 | R | | 18 | 38·39 | ... | | 9 | 13·9 | ... |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | | ° | ′ | ″ | |
| 834 | 30 Aquilæ δ ... ... | Aug. 22 | R | 19 | 18 | 38·30 | .. | 87 | 9 | 16·9 | ... |
| | ... ... ... | „ 29 | R | | 18 | 38·34 | .. | | 9 | 13·6 | ... |
| | ... ... ... | Sep. 2 | M | | 18 | 38·32 | .. | | 9 | 14·2 | ... |
| | ... ... .. | „ 5 | M | | 18 | 38·38 | ... | | 9 | 15·4 | ... |
| | .. ... ... | Aug. 15 | M | | 18 | 38·46 | ... | | 9 | 13·7 | ... |
| 835 | 52 Sagittari $h^2$ .. | Aug. 13 | M | 19 | 28 | 25·68 | ... | 115 | 10 | 50·1 | ... |
| | ... ... .. | „ 15 | M | | 28 | 25·54 | ... | | 10 | 48·7 | ... |
| | ... ... .. | „ 16 | M | | 28 | 25·58 | ... | | 10 | 49·6 | .. |
| | ... ... ... | Sep. 9 | M | | 28 | 25·71 | 4 | | 10 | 50·3 | ... |
| | ... ... ... | „ 14 | M | | 28 | 25·69 | ... | | 10 | 50·6 | .. |
| 836 | 8173 Lacaille ... | Aug. 23 | R | 19 | 31 | 36·73 | .. | 143 | 15 | 31·5 | 8·8 |
| 837 | R Cygni Var. 3 ... | Aug. 20 | R | 19 | 33 | 12·38 | .. | 40 | 4 | 50·2 | 9·9 |
| | ... ... ... | „ 22 | R | | 33 | 12·21 | 5 | | 4 | 51·2 | 9·5 |
| 838 | ... ... ... | Aug. 24 | R | 19 | 34 | 23·47 | ... | 127 | 17 | 3·4 | 9·0 |
| 839 | 50 Aquilæ γ ... ... | Aug. 22 | R | 19 | 39 | 47·48 | ... | 79 | 42 | 57·5 | ... |
| | ... ... .. | „ 24 | R | | 39 | 47·45 | ... | | 42 | 58·0 | .. |
| | ... ... ... | „ 26 | R | | 39 | 47·54 | .. | | 42 | 56·8 | ... |
| 840 | S Vulpeculæ Var. 3.. | Aug. 20 | R | 19 | 42 | 49·21 | ... | 63 | 3 | 1·5 | 9·6 |
| | ... ... .. | „ 23 | R | | 42 | 49·31 | 5 | | 3 | 2·0 | ... |
| 841 | 53 Aquilæ α (*Altair*)... | Aug. 17 | M | 19 | 44 | 8·77 | ... | 81 | 29 | 19·0 | .. |
| | ... ... .. | „ 31 | R | | 44 | 8·80 | ... | | 29 | 17·3 | .. |
| 842 | χ Cygni Var 2 ... | Aug. 8 | M | 19 | 45 | 20·34 | ... | 57 | 25 | 43·3 | 6·0 |
| | ... . .. | „ 9 | M | | 45 | 20·38 | . | | 25 | 42·6 | 6·0 |
| 843 | 55 Aquilæ η Var. 1 . | Aug. 5 | M | 19 | 45 | 32·45 | .. | 89 | 20 | 27·5 | ... |
| 844 | 60 Aquilæ β .. .. | Aug. 17 | M | 19 | 48 | 37·94 | ... | 83 | 55 | 51·8 | ... |
| | ... ... .. | „ 20 | R | | 48 | 37·85 | ... | | 55 | 50·1 | ... |
| | ... ... .. | Sep. 2 | M | | 48 | 37·79 | . | | 55 | 50·7 | ... |
| | ... ... .. | „ 10 | M | | 48 | 37·77 | .. | | 55 | 51·1 | ... |
| 845 | ... ... ... | Sep. 14 | M | 19 | 49 | 33·81 | .. | 145 | 56 | 51·6 | 8·5 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 846 | ... ... .. | July | 25 | R | 19 | 53 | 0·42 | 5 | 147 | 10 | 53·4 | 9·0 |
| | ... ... ... | Sep. | 15 | M | | 53 | 0·30 | 5 | | 10 | 52·9 | 9·0 |
| 847 | ... ... ... | Oct. | 1 | M | 19 | 55 | 35·36 | 3 | 151 | 51 | 39·1 | 9·1 |
| 848 | 9208 Taylor ... ... | Aug. | 8 | M | 19 | 55 | 41·71 | 3 | 122 | 26 | 5·9 | 5·2 |
| | ... ... ... | ,, | 13 | M | | 55 | 41·78 | ... | | 26 | 6·0 | 5·3 |
| 849 | λ Ursæ Minoris *s.p.* | Feb. | 19 | R | 20 | 0 | 6·69 | 3 | 1 | 5 | 54·7 | ... |
| | ... ... *s.p.* | ,, | 26 | R | | 0 | 7·23 | 1 | | 5 | 54·9 | ... |
| | ... ... ... | Aug. | 23 | R | | 0 | 6·86 | 7 | | 5 | 54·9 | ... |
| | ... ... ... | Sep. | 29 | R | | 0 | 7·34 | 3 | | 5 | 53·8 | ... |
| 850 | 20046 O. A. N. ... | July | 18 | R | 20 | 2 | 39·55 | 5 | 32 | 23 | 32·3 | 9·2 |
| 851 | R Capricorni Var. 1... | Aug. | 24 | R | 20 | 3 | 40·42 | 6 | 104 | 40 | 4·6 | 9·1 |
| 852 | S Aquilæ Var. 4 ... | Aug. | 23 | R | 20 | 5 | 21·94 | 5 | 74 | 46 | 56·6 | 9·1 |
| | ... ... ... | Sep. | 13 | M | | 5 | 21·81 | ... | | 46 | 56·1 | 9·0 |
| 853 | ... ... .. | Sep. | 10 | M | 20 | 7 | 41·31 | ... | 81 | 22 | 25·8 | 9·0 |
| 854 | 20356 O. A. S. ... | Oct. | 1 | M | 20 | 8 | 22·17 | ... | 110 | 26 | 8·1 | 8·2 |
| 855 | .. ... .. | Sep. | 14 | M | 20 | 10 | 28·82 | ... | 149 | 9 | 1·6 | 7·0 |
| 856 | 6 Capricorni α¹ ... | July | 18 | R | 20 | 10 | 30·28 | ... | 102 | 57 | 49·9 | ... |
| | ... ... | Aug. | 15 | M | | 10 | 30·27 | ... | | 57 | 50·2 | ... |
| | ... ... | ,, | 24 | R | | 10 | 30·31 | ... | | 57 | 50·4 | ... |
| | ... ... .. | Sep. | 5 | M | | 10 | 30·32 | ... | | 57 | 50·8 | ... |
| | ... ... ... | ,, | 9 | M | | 10 | 30·12 | ... | | 57 | 49·4 | ... |
| | .. .. .. | ,, | 12 | M | | 10 | 30·31 | ... | | 57 | 50·0 | ... |
| | .. ... .. | ,, | 13 | M | | 10 | 30·28 | ... | | 57 | 50·2 | ... |
| 857 | 39045 Lalande .. | Aug. | 26 | R | 20 | 12 | 5·00 | ... | 50 | 3 | 17·3 | 6·3 |
| | ... ... .. | Sep. | 15 | M | | 12 | 4·96 | ... | | 3 | 15·5 | 6·4 |
| 858 | α Pavonis .. .. | Aug. | 24 | R | 20 | 14 | 51·86 | ... | 147 | 10 | 2·7 | ... |
| | ... ... .. | Sep. | 20 | R | | 14 | 52·08 | ... | | 10 | 2·0 | ... |
| | ... .. | ,, | 29 | R | | 14 | 52·02 | ... | | 10 | 1·6 | ... |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 859 | 8441 Lacaille ... | Aug. | 17 | M | 20 | 18 | 13·03 | ... | 121 | 6 | 59·1 | 8·2 |
| | ... ... ... | Sep. | 14 | M | | 18 | 13·17 | ... | | 6 | 58·7 | 8·3 |
| 860 | 11 Capricorni ρ ... | July | 18 | R | 20 | 21 | 5·98 | ... | 108 | 15 | 37·6 | ... |
| | ... ... ... | Aug. | 22 | R | | 21 | 5·93 | ... | | 15 | 37·2 | ... |
| | ... ... ... | „ | 24 | R | | 21 | 5·88 | ... | | 15 | 38·1 | ... |
| | ... ... ... | Sep. | 5 | M | | 21 | 5·94 | ... | | 15 | 38·9 | .. |
| | ... ... ... | „ | 10 | M | | 21 | 5·89 | ... | | 15 | 38·8 | .. |
| | ... ... ... | „ | 13 | M | | 21 | 5·86 | ... | | 15 | 39·0 | ... |
| | ... ... ... | Oct. | 1 | M | | 21 | 5·86 | ... | | 15 | 38·2 | ... |
| 861 | 39525 Lalande ... | Sep. | 19 | R | 20 | 24 | 56·46 | 5 | 86 | 2 | 29·0 | 7·0 |
| | ... ... ... | „ | 20 | R | | 24 | 55·96 | ... | | 2 | 29·3 | ... |
| 862 | ... ... ... | Aug. | 9 | M | 20 | 27 | 12·99 | 3 | 121 | 5 | 53·5 | 8·2 |
| | ... ... .. | Sep. | 14 | M | | 27 | 13·15 | 5 | | 5 | 53·9 | 8·0 |
| | ... ... ... | Oct. | 4 | M | | 27 | 13·10 | 4 | | 5 | 54·5 | 8·8 |
| 863 | ... ... ... | Aug. | 18 | R | 20 | 27 | 50·62 | 5 | 143 | 16 | 24·8 | 8·9 |
| 864 | 24 Cephei (*Hev.*) ... s.p | Mar. | 3 | M | 20 | 28 | 6·61 | 2 | 1 | 17 | 7·1 | 8·9 |
| | ... ... s.p. | „ | 19 | R | | 28 | 5·52 | 2 | | 17 | 6·5 | ... |
| 865 | 143 R. P. L. ... s.p. | Mar. | 16 | R | 20 | 29 | 42·32 | 5 | 5 | 18 | 28·0 | ... |
| | ... ... ... | Sep. | 13 | M | | 29 | 42·13 | 3 | | 18 | 29·9 | |
| 866 | ... ... ... | Sep. | 19 | R | 20 | 29 | 45·35 | ... | 143 | 52 | 1·4 | 8·5 |
| 867 | ... ... ... | Oct. | 1 | M | 20 | 30 | 52·50 | 5 | 149 | 55 | 23·2 | 8·0 |
| | ... ... ... | „ | 8 | M | | 30 | 52·32 | 5 | | 55 | 23·1 | 8·0 |
| 868 | 14 Capricorni τ² ... | Aug. | 16 | R | 20 | 31 | 39·85 | .. | 105 | 25 | 45·7 | ... |
| 869 | S Capricorni Var. 2.. | Aug | 19 | R | 20 | 33 | 57·30 | .. | 109 | 32 | 22·6 | 8·8 |
| | ... .. ... | „ | 22 | R | | 33 | 57·26 | .. | | 33 | 21·2 | 9·2 |
| 870 | ... ... .. | Oct. | 3 | M | 20 | 36 | 32·04 | 5 | 148 | 23 | 33·4 | 8·7 |
| 871 | 50 Cygni α (*Deneb*) | Aug. | 11 | M | 20 | 36 | 47·83 | | 45 | 12 | 16·9 | ... |
| | ... ... .. | Sep. | 5 | M | | 36 | 47·54 | .. | | 12 | 16·9 | . |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 871 | 50 Cygni α (*Deneb*) ... | Sep. | 12 | M | 20 | 36 | 47·59 | ... | 45 | 12 | 16·7 | ... |
| | ... ... ... | ,, | 20 | R | | 36 | 47·77 | ... | | 12 | 15·9 | ... |
| | ... ... ... | ,, | 22 | R | | 36 | 47·65 | ... | | 12 | 15·7 | ... |
| 872 | ... ... ... | Aug. | 26 | R | 20 | 38 | 8·49 | 4 | 143 | 3 | 17·3 | 9·0 |
| 873 | 53 Aquarii Var. ε .. | Aug. | 15 | M | 20 | 40 | 18·58 | ... | 90 | 59 | 29·9 | ... |
| | ... ... .. | ,, | 16 | R | | 40 | 18·62 | ... | | 59 | 29·0 | ... |
| 874 | ... ... ... | Aug. | 23 | R | 20 | 41 | 8·55 | 4 | 105 | 18 | 21·6 | 10·5 |
| 875 | T Aquarii Var. 4 ... | Aug. | 19 | R | 20 | 42 | 45·59 | ... | 95 | 38 | 58·5 | 9·0 |
| | ... ... ... | ,, | 22 | R | | 42 | 45·52 | 5 | | 38 | 58·2 | 9·0 |
| | ... ... ... | Sep. | 19 | R | | 42 | 45·60 | 4 | | 38 | 57·9 | 8·2 |
| | ... ... ... | Oct. | 5 | M | | 42 | 45·60 | ... | | 38 | 57·6 | 8·4 |
| 876 | 8571 Lacaille .. | Sep. | 10 | M | 20 | 42 | 53·11 | 5 | 150 | 12 | 58·5 | 7·9 |
| | ... ... .. | Oct. | 7 | M | | 42 | 53·12 | ... | | 12 | 57·4 | 8·0 |
| 877 | 9633 Taylor ... .. | Aug. | 17 | M | 20 | 44 | 34·11 | ... | 101 | 56 | 47·5 | 7·1 |
| | ... ... .. | Oct. | 6 | M | | 44 | 34·26 | ... | | 56 | 46·8 | 7·6 |
| 878 | 6 Aquarii μ ... .. | Sep. | 12 | M | 20 | 45 | 19·27 | ... | 99 | 29 | 29·4 | ... |
| | ... ... ... | ,, | 13 | M | | 45 | 18·94 | ... | | 29 | 28·9 | ... |
| 879 | ... ... .. | Aug. | 24 | R | 20 | 48 | 36·01 | ... | 149 | 1 | 17·4 | 8·8 |
| 880 | 32 Vulpeculæ .. | Aug. | 11 | M | 20 | 48 | 45·67 | 4 | 62 | 27 | 29·7 | ... |
| | ... ... ... | ,, | 20 | R | | 48 | 45·88 | ... | | 27 | 28·5 | ... |
| | ... ... ... | ,, | 23 | R | | 48 | 45·73 | ... | | 27 | 28·8 | ... |
| | ... ... ... | ,, | 26 | R | | 48 | 45·79 | ... | | 27 | 30·3 | ... |
| | ... ... ... | Sep. | 19 | R | | 48 | 45·88 | ... | | 27 | 29·3 | ... |
| | ... ... ... | ,, | 22 | R | | 48 | 45·85 | ... | | 27 | 29·7 | ... |
| | ... ... ... | ,, | 24 | R | | 48 | 45·79 | ... | | 27 | 28·0 | ... |
| | ... ... ... | Oct. | 8 | M | | 48 | 45·91 | ... | | 27 | 31·5 | ... |
| | ... ... ... | ,, | 13 | M | | 48 | 45·84 | ... | | 27 | 29·7 | ... |
| 881 | ... ... ... | Sep. | 14 | M | 20 | 50 | 40·81 | ... | 148 | 45 | 51·9 | 9·0 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 882 | 8635 Lacaille .. | Aug. | 22 | R | 20 | 52 | 18·68 | ... | 126 | 35 | 3·4 | 7·5 |
| | ... ... ... | Sep. | 20 | R | | 52 | 18·86 | ... | | 35 | 1·7 | 7·0 |
| | ... ... ... | Oct. | 7 | M | | 52 | 18·95 | 5 | | 35 | 3·3 | 7·7 |
| 883 | 23 Capricorni θ ... | Oct. | 8 | M | 20 | 58 | 18·93 | 5 | 107 | 46 | 16·1 | . |
| 884 | R Vulpeculæ Var. 3... | Aug. | 24 | R | 20 | 58 | 20·21 | ... | 66 | 42 | 56·7 | 8·5 |
| | ... ... ... | Sep. | 10 | M | | 58 | 20·29 | ... | | 42 | 56·5 | 8·5 |
| 885 | ... ... ... | Oct. | 1 | M | 20 | 58 | 35·34 | 3 | 148 | 52 | 36·7 | 9·2 |
| 886 | 9772 Taylor ... .. | Sep. | 14 | M | 21 | 0 | 27·23 | 3 | 145 | 7 | 17·3 | 7·5 |
| | ... ... ... | „ | 26 | R | | 0 | 27·30 | ... | | 7 | 15·9 | 8·7 |
| 887 | 61 Cygni (1st) ... | Aug. | 23 | R | 21 | 0 | 48·13 | ... | 15 | 55 | 4·5 | ... |
| | ... ... ... | „ | 26 | R | | 0 | 48·23 | 5 | | 55 | 4·3 | ... |
| | ... ... ... | Sep. | 20 | R | | 0 | 48·14 | ... | | 55 | 4·0 | ... |
| 888 | 13 Aquarii ν... ... | Sep. | 12 | M | 21 | 2 | 10·86 | ... | 101 | 55 | 14·0 | ... |
| | ... ... . | „ | 13 | M | | 2 | 10·84 | .. | | 55 | 14·0 | ... |
| 889 | ... ... ... | Sep. | 19 | R | 21 | 2 | 54·39 | 5 | 145 | 6 | 44·8 | 9·5 |
| | ... ... ... | „ | 26 | R | | 2 | 54·52 | . | | 6 | 44·5 | 9·7 |
| 890 | 8712 Lacaille ... | Sep. | 27 | R | 21 | 4 | 11·07 | ... | 146 | 48 | 32·8 | 8·5 |
| 891 | 64 Cygni ζ ... .. | Aug. | 20 | R | 21 | 7 | 8·85 | ... | 60 | 19 | 47·3 | |
| | ... ... ... | „ | 22 | R | | 7 | 8·91 | .. | | 19 | 47·2 | ... |
| | ... ... .. | „ | 23 | R | | 7 | 8·93 | ... | | 19 | 46·9 | ... |
| | ... ... ... | „ | 26 | R | | 7 | 8·89 | .. | | 19 | 47·5 | ... |
| | ... .. .. | Sep. | 20 | R | | 7 | 8·96 | .. | | 19 | 46·8 | ... |
| | ... ... .. | „ | 22 | R | | 7 | 8·85 | ... | | 19 | 47·6 | .. |
| | ... ... ... | „ | 24 | R | | 7 | 8·81 | ... | | 19 | 48·3 | ... |
| | ... ... ... | Oct. | 1 | M | | 7 | 8·92 | ... | | 19 | 46·4 | ... |
| | ... .. .. | „ | 3 | M | | 7 | 8·91 | .. | | 19 | 47·6 | |
| 892 | T. Capricorni Var. 3 | Aug. | 16 | R | 21 | 14 | 25·37 | .. | 105 | 40 | 11·3 | 9·0 |
| | ... .. .. | „ | 26 | R | | 14 | 25·67 | 5 | | 40 | 11·2 | 9·2 |
| | ... ... .. | Sep. | 26 | R | | 14 | 25·71 | ... | | 40 | 11·9 | 9·0 |

## *Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 893 | 5 Cephei α (*Alderamin*) | Aug. | 23 | R | 21 | 15 | 19·82 | 5 | 27 | 59 | 24·4 | ... |
| | ... ... .. | Sep. | 14 | M | | 15 | 20·01 | 5 | | 59 | 25·6 | ... |
| | .. ... ... | ,, | 20 | R | | 15 | 19·95 | ... | | 59 | 24·6 | ... |
| 894 | 9931 Taylor ... ... | Sep. | 15 | M | 21 | 18 | 41·93 | ... | 142 | 53 | 23·2 | 6·2 |
| | ... ... .. | ,, | 28 | R | | 18 | 41·77 | 4 | | 53 | 23·6 | 7·0 |
| | ... ... ... | Oct. | 1 | M | | 18 | 41·81 | ... | | 53 | 22·6 | 6·8 |
| 895 | ... ... ... | Oct. | 7 | M | 21 | 20 | 5·57 | 5 | 150 | 47 | 50·8 | 8·2 |
| 896 | 22 Aquarii β... ... | Aug. | 16 | R | 21 | 24 | 23·77 | ... | 96 | 10 | 5·2 | ... |
| | ... ... ... | ,, | 17 | M | | 24 | 23·82 | ... | | 10 | 4·7 | ... |
| | ... ... ... | ,, | 18 | R | | 24 | 23·77 | ... | | 10 | 4·6 | ... |
| | ... ... .. | ,, | 23 | R | | 24 | 23·80 | ... | | 10 | 4·6 | ... |
| | ... ... ... | ,, | 24 | R | | 24 | 23·79 | .. | | 10 | 4·4 | ... |
| | ... ... ... | ,, | 26 | R | | 24 | 23·80 | ... | | 10 | 4·7 | ... |
| | ... ... ... | Sep. | 12 | M | | 24 | 23·83 | ... | | 10 | 5·0 | ... |
| | ... ... .. | ,, | 15 | M | | 24 | 23·88 | ... | | 10 | 4·5 | ... |
| | ... ... ... | ,, | 22 | R | | 24 | 23·82 | ... | | 10 | 4·7 | ... |
| | ... ... ... | ,, | 24 | R | | 24 | 23·86 | ... | | 10 | 4·5 | ... |
| | ... .. .. | Oct. | 3 | M | | 22 | 23·81 | ... | | 10 | 5·0 | ... |
| | ... ... | ,, | 4 | M | | 24 | 23·77 | ... | | 10 | 6·0 | ... |
| | ... .. | ,, | 5 | M | | 24 | 23·87 | ... | | 10 | 5·3 | ... |
| | ... ... . | ,, | 6 | M | | 24 | 23·80 | ... | | 10 | 3·7 | ... |
| 897 | ... ... ... | Sep. | 14 | M | 21 | 25 | 49·17 | .. | 140 | 23 | 25·6 | 7·9 |
| 898 | 8 Cephei β ... ... | Aug. | 13 | M | 21 | 26 | 53·98 | 5 | 20 | 2 | 9·4 | ... |
| | ... ... ... | Sep. | 20 | R | | 26 | 53·90 | 5 | | 2 | 9·0 | .. |
| | .. ... ... | ,, | 29 | R | | 26 | 53·74 | ... | | 2 | 8·9 | ... |
| 899 | ... ... ... | Sep. | 27 | R | 21 | 27 | 4·39 | .. | 132 | 38 | 18·9 | 9·5 |
| 900 | ... ... ... | Sep. | 28 | R | 21 | 28 | 50·12 | 4 | 134 | 4 | 22·2 | 9·3 |
| 901 | ... ... ... | Sep. | 28 | R | 21 | 29 | 29·13 | 4 | 134 | 2 | 29·7 | 9·0 |
| | ... ... | Oct. | 8 | M | | 29 | 29·33 | ... | | 2 | 30·8 | 9·0 |
| 902 | ... ... ... | Oct. | 7 | M | 21 | 29 | 53·40 | .. | 98 | 25 | 25·9 | 9·0 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 903 | 23 Aquarii 1 ... .. | Aug. | 16 | R | 21 | 30 | 30·59 | ... | 98 | 27 | 45·1 | ... |
| | ... ... ... | " | 17 | M | | 30 | 30·49 | ... | | 27 | 44·8 | ... |
| | ... ... ... | Oct. | 11 | M | | 30 | 30·63 | ... | | 27 | 44·4 | ... |
| 904 | 10032 Taylor ... | Sep. | 5 | M | 21 | 30 | 41·50 | ... | 142 | 58 | 15·0 | 6·4 |
| 905 | 10065 Taylor ... | Sep. | 13 | M | 21 | 34 | 27·98 | .. | 145 | 7 | 8·3 | 6·4 |
| 906 | ... ... ... | Sep. | 27 | R | 21 | 34 | 41·63 | ... | 134 | 0 | 27·1 | 9·2 |
| | ... ... ... | Oct. | 1 | M | | 34 | 41·44 | ... | | 0 | 27·2 | 9·0 |
| 907 | 8 Pegasi ε ... ... | Sep. | 14 | M | 21 | 37 | 30·19 | ... | 80 | 44 | 51·2 | ... |
| | ... ... ... | " | 15 | M | | 37 | 30·34 | ... | | 44 | 48·5 | ... |
| | ... ... ... | " | 19 | R | | 37 | 30·39 | 5 | | 44 | 50·2 | ... |
| | ... ... ... | " | 20 | R | | 37 | 30·43 | ... | | 44 | 49·7 | ... |
| | ... ... ... | " | 26 | R | | 37 | 30·38 | ... | | 44 | 50·9 | ... |
| | ... ... ... | " | 29 | R | | 37 | 30·36 | ... | | 44 | 50·2 | ... |
| | ... ... ... | Oct. | 3 | M | | 37 | 30·25 | ... | | 44 | 51·3 | ... |
| | ... ... ... | " | 4 | M | | 37 | 30·37 | ... | | 44 | 50·0 | .. |
| | ... ... ... | " | 5 | M | | 37 | 30·20 | .. | | 44 | 50·0 | ... |
| | ... ... ... | " | 6 | M | | 37 | 30·40 | 5 | | 44 | 48·5 | ... |
| 908 | 10126 Taylor ... | Sep. | 28 | R | 21 | 40 | 59·24 | ... | 137 | 14 | 24·3 | 7·0 |
| 909 | XXI 975 W. B. E. ... | Aug. | 19 | R | 21 | 41 | 9·89 | ... | 97 | 19 | 43·0 | 9·0 |
| | ... ... ... | " | 26 | R | | 41 | 9·96 | 5 | | 19 | 43·9 | 8·9 |
| | ... ... .. | Sep. | 5 | M | | 41 | 9·79 | ... | | 19 | 44·9 | 9·0 |
| 910 | ... ... ... | Sep. | 27 | R | 21 | 42 | 52·87 | ... | 132 | 31 | 25·7 | 9·0 |
| | ... ... ... | Oct. | 7 | M | | 42 | 52·88 | 5 | | 31 | 26·2 | 9·1 |
| 911 | 16 Pegasi ... ... | Aug. | 18 | R | 21 | 46 | 52·51 | ... | 64 | 42 | 51·0 | ... |
| | ... ... ... | Sep. | 12 | M | | 46 | 52·51 | .. | | 42 | 50·7 | ... |
| | ... ... ... | " | 19 | R | | 46 | 52·48 | ... | | 42 | 49·9 | ... |
| | ... ... .. | " | 20 | R | | 46 | 52·55 | .. | | 42 | 50·0 | ... |
| | ... ... ... | " | 26 | R | | 46 | 52·41 | ... | | 42 | 50·3 | ... |
| | ... ... ... | " | 29 | R | | 46 | 52·52 | ... | | 42 | 50·2 | ... |
| | ... .. ... | Oct. | 4 | M | | 46 | 52·40 | ... | | 42 | 51·8 | ... |
| | ... ... ... | " | 5 | M | | 46 | 52·45 | ... | | 42 | 51·1 | ... |
| | ... ... ... | " | 6 | M | | 46 | 52·48 | ... | | 42 | 50·8 | ... |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension, 1864. | | | No. of Wires. | Mean Polar Distance, 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 912 | 8058 Lacaille .. | Sep. | 28 | R | 21 | 47 | 12·72 | ... | 135 | 53 | 18·9 | 7·5 |
| | ... ... ... | Oct. | 3 | M | | 47 | 12·87 | ... | | 53 | 20·0 | 7·6 |
| 913 | ... ... ... | Sep. | 27 | R | 21 | 47 | 34·89 | ... | 133 | 12 | 29·7 | 9·2 |
| | ... ... ... | Oct. | 7 | M | | 47 | 34·78 | ... | | 12 | 30·4 | 9·3 |
| 914 | ... ... .. | Sep. | 28 | R | 21 | 52 | 46·60 | ... | 136 | 38 | 12·8 | 9·7 |
| 915 | κ¹ Indi ... ... | Nov. | 8 | M | 21 | 56 | 15·98 | ... | 150 | 17 | 30·7 | 6·5 |
| 916 | 31 Aquarii o ... .. | Sep. | 5 | M | 21 | 56 | 16·50 | ... | 92 | 48 | 38·9 | ... |
| 917 | 32 Aquarii ... ... | Sep. | 12 | M | 21 | 57 | 47·71 | ... | 91 | 33 | 47·8 | 5·5 |
| | ... ... ... | Oct. | 5 | M | | 57 | 47·54 | ... | | 33 | 47·0 | 5·6 |
| | ... ... ... | ,, | 6 | M | | 57 | 47·48 | ... | | 33 | 46·6 | 5·7 |
| 918 | ... ... ... | Sep. | 28 | R | 21 | 58 | 11·83 | ... | 136 | 2 | 34·0 | 7·7 |
| | ... ... ... | Oct. | 7 | M | | 58 | 11·98 | 3 | | 2 | 33·6 | 8·1 |
| 919 | 34 Aquarii o ... ... | Aug | 19 | R | 21 | 58 | 47·83 | ... | 90 | 58 | 46·8 | .. |
| | ... ... ... | Sep. | 10 | M | | 58 | 47·77 | ... | | 58 | 45·9 | ... |
| | .. .. ... | ,, | 13 | M | | 58 | 47·76 | ... | | 58 | 45·8 | ... |
| | ... ... ... | ,, | 26 | R | | 58 | 47·87 | ... | | 58 | 46·6 | .. |
| | .. .. ... | ,, | 29 | R | | 58 | 47·80 | ... | | 58 | 45·6 | ... |
| | ... .. | Oct. | 1 | M | | 58 | 47·69 | ... | | 58 | 46·1 | ... |
| | ... ... .. | ,, | 8 | M | | 58 | 47·77 | ... | | 58 | 46·2 | ... |
| | ... ... .. | ,, | 13 | M | | 58 | 47·79 | .. | | 58 | 46·4 | ... |
| | ... ... ... | ,, | 14 | M | | 58 | 47·75 | ... | | 58 | 46·1 | ... |
| | ... . .. | Nov. | 10 | M | | 58 | 47·81 | ... | | 58 | 47·4 | ... |
| 920 | α Gruis ... ... | Sep. | 29 | R | 21 | 59 | 38·79 | .. | 137 | 37 | 5·5 | .. |
| 921 | ... ... ... | Sep. | 27 | R | 22 | 3 | 19·55 | 5 | 101 | 8 | 51·2 | 9·5 |
| 922 | XXII 93 W. B. E. ... | Aug. | 19 | R | 22 | 6 | 21·86 | .. | 90 | 25 | 48·5 | 8·0 |
| | ... ... ... | ,, | 26 | R | | 6 | 21·82 | 5 | | 25 | 46·2 | 8·0 |
| | ... ... | Oct. | 4 | M | | 6 | 21·88 | ... | | 25 | 47·8 | 8·0 |
| 923 | .. ... ... | Oct. | 6 | M | 22 | 9 | 5·55 | 5 | 98 | 22 | 7·4 | ... |
| | ... ... ... | ,, | 15 | M | | 9 | 5·45 | .. | | 22 | 6·8 | 8·0 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension 1864 | | | No. of Wires. | Mean Polar Distance 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 924 | .. ... .. | Oct. | 7 | M | 22 | 9 | 7·81 | 5 | 143 | 27 | 23·2 | 9·0 |
| 925 | 43 Aquarii θ ... | Sep. | 13 | M | 22 | 9 | 39·27 | ... | 98 | 27 | 33·5 | ... |
| | ... ... . | " | 27 | R | | 9 | 39·28 | .. | | 27 | 34·3 | ... |
| | ... ... ... | " | 28 | R | | 9 | 39·24 | . | | 27 | 33·7 | |
| | ... ... ... | " | 29 | R | | 9 | 39·27 | ... | | 27 | 33·0 | ... |
| | ... ... ... | Oct. | 5 | M | | 9 | 39·35 | ... | | 27 | 33·7 | .. |
| | .. ... . | " | 8 | M | | 9 | 39·28 | ... | | 27 | 34·4 | ... |
| | ... ... ... | " | 11 | M | | 9 | 39·25 | ... | | 27 | 34·5 | ... |
| | ... ... ... | " | 13 | M | | 9 | 39·31 | ... | | 27 | 34·2 | ... |
| | ... ... ... | " | 14 | M | | 9 | 39·30 | ... | | 27 | 34·3 | ... |
| | ... ... ... | Nov. | 8 | M | | 9 | 39·31 | .. | | 27 | 33·6 | ... |
| 926 | 48 Aquarii γ ... | Oct. | 11 | M | 22 | 14 | 37·87 | ... | 92 | 4 | 19·1 | ... |
| | ... ... ... | Nov. | 3 | M | | 14 | 37·94 | 4 | | 4 | 18·8 | .. |
| | ... ... ... | " | 8 | M | | 14 | 37·81 | ... | | 4 | 18·4 | .. |
| 927 | ... ... ... | Aug. | 19 | R | 22 | 15 | 20·79 | .. | 82 | 47 | 25·4 | 8·6 |
| | ... ... ... | Sep. | 12 | M | | 15 | 20·89 | .. | | 47 | 26·4 | 9·0 |
| | ... ... . | Oct. | 4 | M | | 15 | 20·89 | . | | 47 | 26·5 | 9·1 |
| 928 | ... ... .. | Sep. | 28 | R | 22 | 16 | 51·19 | ... | 135 | 58 | 25·0 | 9·6 |
| | ... ... .. | Oct. | 1 | M | | 16 | 51·22 | .. | | 58 | 25·4 | 9·1 |
| 929 | 55 Aquarii ζ ... .. | Aug. | 17 | M | 22 | 21 | 49·53 | ... | 90 | 42 | 51·9 | 5·7 |
| | ... ... . | Oct. | 6 | M | | 21 | 49·72 | ... | | 42 | 51·8 | 6·6 |
| | ... ... .. | " | 13 | M | | 21 | 49·54 | ... | | 42 | 52·2 | 6·0 |
| 930 | 57 Aquarii σ ... .. | Sep. | 13 | M | 22 | 23 | 26·76 | ... | 101 | 22 | 23·2 | ... |
| 931 | 150 R. P. L. .. s.p. | Mar. | 1 | M | 22 | 23 | 38·70 | 3 | 4 | 34 | 41·8 | ... |
| | ... ... s.p. | " | 5 | M | | 23 | 39·28 | 3 | | 34 | 42·1 | ... |
| | ... ... s.p. | " | 9 | M | | 23 | 38·43 | 2 | | 34 | 41·1 | ... |
| | .. ... s.p | " | 14 | M | | 23 | 38·04 | 3 | | 34 | 43·4 | ... |
| | ... .. s.p | Apl | 15 | M | | 23 | 38·57 | 5 | | 34 | 41·7 | ... |
| | ... ... s.p | " | 12 | M | | 23 | 38·95 | 3 | | 34 | 42·0 | ... |
| | ... .. .. | Sep. | 26 | R | | 23 | 38·44 | 5 | | 34 | 42·4 | ... |
| 932 | 27 Cephei δ Var 1 .. | Oct | 5 | M | 22 | 24 | 7·58 | ... | 32 | 16 | 51·0 | ... |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 933 | ... ... ... | Sep. | 28 | R | 22 | 24 | 17·62 | ... | 135 | 42 | 9·4 | 9·2 |
| 934 | ... ... .. | Oct. | 7 | M | 22 | 24 | 39·74 | ... | 146 | 50 | 35·2 | 9·7 |
| 935 | .. ... .. | Oct. | 1 | M | 22 | 25 | 51·88 | 5 | 141 | 30 | 13·4 | 8·2 |
| 936 | 62 Aquarii η .. .. | Aug. | 17 | M | 22 | 28 | 21·85 | ... | 90 | 49 | 3·5 | ... |
| | ... ... ... | Sep. | 27 | R | | 28 | 21·99 | ... | | 49 | 4·3 | ... |
| | ... ... ... | „ | 28 | R | | 28 | 22·04 | ... | | 49 | 3·5 | ... |
| | ... ... ... | Oct. | 11 | M | | 28 | 22·03 | ... | | 49 | 4·2 | ... |
| | ... ... ... | „ | 14 | M | | 28 | 21·85 | ... | | 49 | 4·4 | ... |
| | ... ... ... | „ | 15 | M | | 28 | 21·96 | ... | | 49 | 4·8 | ... |
| | ... ... ... | „ | 21 | R | | 28 | 21·95 | ... | | 49 | 3·2 | ... |
| | ... ... ... | Nov. | 3 | M | | 28 | 22·04 | ... | | 49 | 3·3 | ... |
| | ... ... ... | „ | 10 | M | | 28 | 22·01 | ... | | 49 | 5·1 | ... |
| 937 | 9188 Lacaille ... | Oct. | 24 | R | 22 | 29 | 53·61 | ... | 130 | 33 | 42·5 | 7·0 |
| | ... ... ... | Nov. | 2 | M | | 29 | 53·44 | 5 | | 33 | 43·9 | 7·0 |
| 938 | 10477 Taylor ... | Oct. | 4 | M | 22 | 32 | 7·28 | 4 | 148 | 7 | 50·9 | 6·3 |
| | ... ... .. | „ | 13 | M | | 32 | 7·21 | ... | | 7 | 50·0 | 6·1 |
| 939 | 42 Pegasi 3 ... ... | Sep. | 20 | R | 22 | 34 | 40·83 | ... | 79 | 52 | 40·3 | ... |
| | .. ... ... | „ | 27 | R | | 34 | 40·70 | ... | | 52 | 39·7 | ... |
| | ... ... .. | „ | 28 | R | | 34 | 40·71 | ... | | 52 | 39·8 | ... |
| | ... ... ... | Oct. | 7 | M | | 34 | 40·78 | ... | | 52 | 40·2 | .. |
| | ... ... ... | „ | 21 | R | | 34 | 40·70 | ... | | 52 | 39·5 | ... |
| 940 | ... .. .. | Oct. | 24 | R | 22 | 36 | 30·48 | ... | 130 | 26 | 57·0 | 8·5 |
| | .. .. .. | „ | 25 | R | | 36 | 30·22 | ... | | 26 | 56·5 | 9·0 |
| 941 | 9226 Lacaille .. | Sep. | 22 | R | 22 | 37 | 39·00 | ... | 145 | 46 | 40·1 | 7·0 |
| | ... ... .. | Oct. | 8 | M | | 37 | 39·25 | 3 | | 46 | 39·5 | 6·6 |
| | ... .. ... | Nov. | 3 | M | | 37 | 38·98 | 4 | | 46 | 40·3 | 6·7 |
| 942 | XXII 844 W. B. E. . | Oct. | 5 | M | 22 | 40 | 34·18 | ... | 87 | 48 | 41·2 | 9·0 |
| | ... .. .. | „ | 6 | M | | 40 | 34·09 | ... | | 48 | 41·0 | 9·0 |
| 943 | ... ... ... | Nov. | 2 | M | 22 | 40 | 51·93 | ... | 142 | 38 | 2·0 | 8·6 |
| | ... ... .. | „ | 4 | M | | 40 | 51·68 | 5 | | 38 | 3·1 | 8·7 |

## *Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | *h.* | *m.* | *s.* | | ° | ′ | ″ | |
| 944 | ... ... | Oct. | 22 | R | 22 | 44 | 41·40 | ... | 130 | 1 | 17·4 | 8·0 |
| | ... ... ... | „ | 24 | R | | 44 | 41·54 | ... | | 1 | 17·0 | 8·0 |
| 945 | ... ... ... | Oct. | 7 | M | 22 | 44 | 43·81 | 5 | 145 | 33 | 2·5 | 10·2 |
| 946 | ... ... ... | Sep. | 12 | M | 22 | 44 | 50·43 | 6 | 148 | 34 | 33·1 | 8·2 |
| | ... ... ... | Oct. | 4 | M | | 44 | 50·42 | 3 | | 34 | 32·9 | ... |
| 947 | ... ... ... | Nov. | 8 | M | 22 | 48 | 3·87 | ... | 152 | 55 | 12·3 | 9·0 |
| 948 | ... ... ... | Oct. | 27 | M | 22 | 49 | 13·19 | ... | 135 | 27 | 51·4 | 9·0 |
| | ... ... ... | Nov. | 7 | M | | 49 | 13·11 | ... | | 27 | 52·2 | 8·9 |
| 949 | S Aquarii Var. 2 ... | Sep. | 22 | R | 22 | 49 | 49·09 | 5 | 111 | 4 | 1·0 | ... |
| 950 | 2 Pis. Aust. α (*Fomalhaut*) | Oct. | 11 | M | 22 | 50 | 7·71 | ... | 120 | 20 | 33·7 | ... |
| | ... ... ... | „ | 15 | M | | 50 | 7·74 | ... | | 20 | 32·9 | ... |
| | ... ... ... | „ | 21 | R | | 50 | 7·67 | ... | | 20 | 32·4 | ... |
| | ... ... ... | „ | 25 | R | | 50 | 7·79 | ... | | 20 | 32·1 | ... |
| | ... ... ... | Nov. | 4 | M | | 50 | 7·81 | ... | | 20 | 33·0 | ... |
| | ... ... ... | „ | 5 | M | | 50 | 7·74 | ... | | 20 | 32·4 | ... |
| | ... ... ... | „ | 10 | M | | 50 | 7·77 | 5 | | 20 | 33·1 | ... |
| 951 | ... ... ... | Sep. | 13 | M | 22 | 50 | 19·32 | ... | 111 | 0 | 5·9 | 7·1 |
| | ... ... ... | Oct. | 8 | M | | 50 | 19·47 | ... | | 0 | 5·5 | 7·4 |
| 952 | ... ... ... | Oct. | 22 | R | 22 | 51 | 26·05 | ... | 151 | 33 | 16·0 | 8·8 |
| | ... ... ... | „ | 24 | R | | 51 | 26·19 | ... | | 33 | 15·0 | 9·0 |
| 953 | 9353 Lacaille ... | Oct. | 4 | M | 22 | 56 | 36·00 | ... | 144 | 41 | 38·0 | 8·9 |
| 954 | ... ... ... | Oct. | 25 | R | 22 | 57 | 11·27 | ... | 149 | 37 | 50·8 | 8·9 |
| 955 | 53 Peg. β Var. 1 (*Scheat*) | Oct. | 5 | M | 22 | 57 | 11·01 | 3 | 62 | 30 | 16·9 | ... |
| 956 | 54 Pegasi α (*Markab*). | Sep. | 27 | R | 22 | 57 | 59·20 | ... | 75 | 31 | 34·5 | ... |
| | ... ... ... | „ | 28 | R | | 57 | 59·16 | ... | | 31 | 34·3 | ... |
| | ... ... ... | Oct. | 7 | M | | 57 | 59·16 | ... | | 31 | 35·5 | ... |
| | ... ... ... | „ | 31 | R | | 57 | 59·21 | ... | | 31 | 33·9 | ... |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation | Observer. | Mean Right Ascension, 1864. | | | No. of Wires. | Mean Polar Distance, 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | | ° | ′ | ″ | |
| 957 | ... ... . | Oct. 24 | R | 22 | 59 | 20·04 | ... | 150 | 22 | 5·8 | 9·3 |
| | ... .. . | Nov. 7 | M | | 59 | 19·99 | ... | | 22 | 5·3 | 8·9 |
| 958 | 9372 Lacaille .. | Oct. 15 | M | 23 | 0 | 22·68 | ... | 150 | 28 | 13·3 | 8·0 |
| | . ... .. | " 27 | R | | 0 | 22·73 | ... | | 28 | 12·0 | 8·0 |
| 959 | 9377 Lacaille . | Sep. 14 | M | 23 | 2 | 12·23 | 5 | 151 | 18 | 4·9 | 6·5 |
| | ... ... . | Oct. 8 | M | | 2 | 12·46 | 5 | | 18 | 3·7 | 6·7 |
| 960 | .. ... .. | Sep. 27 | R | 23 | 4 | 18·57 | ... | 130 | 49 | 14·1 | 9·5 |
| | ... ... ... | Oct. 22 | R | | 4 | 18·60 | ... | | 49 | 16·0 | 9·5 |
| 961 | 9394 Lacaille .. | Oct. 25 | R | 23 | 5 | 9·82 | ... | 145 | 50 | 37·4 | 8·2 |
| | ... ... ... | " 26 | R | | 5 | 9·78 | ... | | 50 | 37·8 | 8·2 |
| | ... ... .. | Nov. 3 | M | | 5 | 9·67 | 3 | | 50 | 38·3 | 8·0 |
| 962 | 6 Piscium γ . ... | Sep. 15 | M | 23 | 10 | 6·86 | ... | 87 | 27 | 36·7 | .. |
| | ... ... .. | " 16 | R | | 10 | 6·85 | ... | | 27 | 36·8 | ... |
| | ... ... . | Oct. 8 | M | | 10 | 6·92 | ... | | 27 | 38·8 | ... |
| | .. ... .. | " 31 | R | | 10 | 6·92 | ... | | 27 | 38·1 | ... |
| 963 | ... .. .. | Oct. 24 | R | 23 | 11 | 5·32 | ... | 151 | 15 | 41·8 | 9·8 |
| 964 | ... ... .. | Oct. 27 | R | 23 | 11 | 6·18 | 5 | 127 | 25 | 34·9 | 9·3 |
| 965 | ... ... . | Nov. 12 | M | 23 | 11 | 18·58 | .. | 136 | 54 | 21·5 | 8·6 |
| 966 | ... ... .. | Sep. 22 | R | 23 | 12 | 7·56 | . | 137 | 3 | 54·3 | 8·0 |
| 967 | ... ... ... | Oct. 15 | M | 23 | 12 | 12·85 | 5 | 127 | 24 | 50·8 | 8·2 |
| | .. ... .. | " 27 | R | | 12 | 13·20 | 4 | | 24 | 50·7 | 8·3 |
| 968 | 96 Aquarii .. .. | Sep. 9 | M | 23 | 12 | 20·62 | ... | 95 | 52 | 2·5 | 5·5 |
| 969 | ... ... . | Oct. 22 | R | 23 | 15 | 17·22 | | 130 | 46 | 14·7 | 8·7 |
| | ... .. ... | " 25 | R | | 15 | 17·34 | ... | | 46 | 14·8 | 8·7 |
| | .. ... . | " 26 | R | | 15 | 17·13 | 5 | | 46 | 15·6 | 8·7 |
| | .. ... .. | " 28 | R | | 15 | 17·20 | 4 | | 46 | 15·2 | 8·0 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | | ° | ′ | ″ | |
| 970 | ... ... ... | Oct. 24 | R | 23 | 15 | 41·65 | 5 | 130 | 39 | 46·9 | 9·8 |
| 971 | ... ... ... | Oct. 26 | R | 23 | 19 | 42·21 | 5 | 151 | 38 | 3·9 | ... |
| 972 | 8 Piscium κ .. ... | Aug. 19 | R | 23 | 19 | 57·61 | ... | 89 | 29 | 20·2 | ... |
| | ... ... ... | Sep. 16 | R | | 19 | 57·60 | ... | | 29 | 20·8 | .. |
| | ... ... .. | Oct. 13 | M | | 19 | 57·58 | ... | | 29 | 20·6 | ... |
| | .. ... .. | " 27 | R | | 19 | 57·63 | ... | | 29 | 19·3 | ... |
| | ... ... ... | " 31 | R | | 19 | 57·65 | ... | | 29 | 19·5 | .. |
| | ... ... ... | Nov. 2 | M | | 19 | 57·69 | ... | | 29 | 20·4 | ... |
| | ... .. ... | " 4 | M | | 19 | 57·68 | ... | | 29 | 20·1 | ... |
| | ... ... ... | " 5 | M | | 19 | 57·67 | 5 | | 29 | 19·0 | ... |
| 973 | ... ... ... | Sep. 20 | R | 23 | 23 | 37·20 | 5 | 148 | 57 | 35·8 | 8·7 |
| | ... ... ... | Nov. 3 | M | | 23 | 37·18 | ... | | 57 | 35·4 | 8·6 |
| 974 | ... ... ... | Oct. 24 | R | 23 | 25 | 29·85 | 5 | 129 | 51 | 59·2 | 10·0 |
| | ... ... ... | " 25 | R | 23 | 25 | 29·90 | ... | | 51 | 59·7 | 9·8 |
| 975 | 10804 Taylor ... | Oct. 4 | M | 23 | 27 | 29·64 | ... | 147 | 34 | 37·6 | 6·7 |
| 976 | ... ... ... | Sep. 22 | R | 23 | 27 | 45·91 | ... | 148 | 14 | 44·8 | 8·7 |
| | ... ... ... | Oct. 15 | M | | 27 | 45·65 | ... | | 14 | 47·7 | 8·0 |
| 977 | 158 R. P. L. ... s.p. | Mar. 23 | R | 23 | 27 | 50·24 | 5 | 3 | 26 | 34·6 | ... |
| | ... ... s.p. | 31 | R | | 27 | 49·68 | 3 | | 26 | 33·3 | ... |
| | ... ... s.p. | May 17 | R | | 27 | 50·02 | 5 | | 26 | 34·2 | .. |
| | ... . ... | Oct. 3 | M | | 27 | 50·28 | 2 | | 26 | 35·0 | ... |
| | ... ... ... | Nov. 5 | M | | 27 | 49·26 | 3 | | 26 | 35·5 | .. |
| 978 | ... ... .. | Oct. 26 | R | 23 | 29 | 49·60 | 6 | 148 | 55 | 19·7 | 8·0 |
| | ... ... .. | Nov. 7 | M | | 29 | 49·28 | 5 | | 55 | 16·0 | 8·1 |
| 979 | ... ... .. | Oct. 26 | R | 23 | 30 | 21·60 | ... | 148 | 56 | 42·9 | 8·3 |
| 980 | 17 Piscium ι .. ... | Aug. 10 | R | 23 | 32 | 57·35 | .. | 85 | 6 | 39·1 | ... |
| | .. ... ... | Oct. 6 | M | | 32 | 57·33 | ... | | 6 | 38·1 | .. |
| | ... ... ... | " 7 | M | | 32 | 57·31 | ... | | 6 | 38·3 | ... |
| | ... ... ... | " 13 | M | | 32 | 57·35 | ... | | 6 | 39·1 | ... |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires. | Mean Polar Distance. 1864. | | | Magnitude. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 980 | 17 Piscium ι ... | Oct. | 27 | R | 23 | 32 | 57·30 | ... | 86 | 6 | 39·8 | ... |
| | ... ... ... | Nov. | 2 | M | | 32 | 57·36 | ... | | 6 | 39·5 | ... |
| | ... ... ... | ,, | 8 | M | | 32 | 57·86 | ... | | 6 | 38·9 | ... |
| 981 | 35 Cephei γ ... ... | Sep. | 20 | R | 23 | 33 | 47·95 | ... | 13 | 7 | 36·8 | ... |
| | ... ... ... | Oct. | 24 | R | | 33 | 47·74 | ... | | 7 | 38·9 | ... |
| | ... ... ... | ,, | 31 | R | | 33 | 47·79 | ... | | 7 | 36·0 | ... |
| 982 | ... ... ... | Oct. | 25 | R | 23 | 34 | 20·29 | ... | 147 | 27 | 26·3 | 9·2 |
| 983 | ... ... ... | Nov. | 10 | M | 23 | 35 | 11·20 | ... | 148 | 42 | 58·3 | 8·0 |
| 984 | ... ... ... | Sep. | 20 | R | 23 | 36 | 46·94 | 5 | 106 | 2 | 18·9 | 9·5 |
| | ... ... ... | Oct. | 15 | M | | 36 | 46·55 | ... | | 2 | 18·6 | 8·9 |
| 985 | 9583 Lacaille ... | Oct. | 4 | M | 23 | 38 | 50·58 | ... | 128 | 43 | 54·3 | 8·4 |
| | ... ... ... | ,, | 25 | R | | 38 | 50·59 | ... | | 43 | 52·9 | 8·9 |
| 986 | ... ... ... | Oct. | 25 | R | 23 | 41 | 4·67 | ... | 128 | 46 | 38·4 | 9·7 |
| 987 | 4 Sculptoris ... ... | Oct. | 7 | M | 23 | 41 | 50·33 | ... | 118 | 52 | 57·5 | ... |
| | ... ... ... | ,, | 8 | M | | 41 | 50·17 | ... | | 52 | 57·4 | ... |
| | ... ... ... | ,, | 22 | R | | 41 | 50·04 | ... | | 52 | 56·8 | ... |
| | ... ... ... | ,, | 26 | R | | 41 | 50·27 | ... | | 52 | 56·6 | ... |
| | ... ... ... | ,, | 27 | R | | 41 | 50·26 | ... | | 52 | 57·1 | ... |
| | ... ... ... | ,, | 28 | R | | 41 | 50·28 | ... | | 52 | 55·3 | ... |
| | ... ... ... | Nov. | 2 | M | | 41 | 50·21 | ... | | 52 | 57·5 | ... |
| | ... ... ... | ,, | 3 | M | | 41 | 50·15 | ... | | 52 | 56·4 | ... |
| | ... ... ... | ,, | 4 | M | | 41 | 50·19 | ... | | 53 | 57·3 | ... |
| | ... ... ... | ,, | 5 | M | | 41 | 50·24 | ... | | 52 | 56·3 | ... |
| | ... ... ... | ,, | 8 | M | | 41 | 50·20 | ... | | 52 | 56·0 | ... |
| 988 | ... ... ... | Sep. | 15 | M | 23 | 41 | 58·37 | ... | 142 | 1 | 25·9 | 8·5 |
| 989 | ... ... ... | Nov. | 7 | M | 23 | 42 | 41·88 | ... | 150 | 51 | 3·2 | 9·1 |
| 990 | ... ... ... | Oct. | 22 | R | 23 | 47 | 43·56 | ... | 128 | 50 | 58·3 | 9·0 |
| | ... ... ... | ,, | 24 | R | | 47 | 43·76 | ... | | 50 | 58·5 | 9·8 |

*Separate Results of Madras Meridian Circle Observations in 1864.*

| Number. | Star. | Date of Observation. | | Observer. | Mean Right Ascension. 1864. | | | No. of Wires | Mean Polar Distance. 1864. | | | Magnitude |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | h. | m. | s. | | ° | ′ | ″ | |
| 991 | 9641 Lacaille ... | Oct. | 28 | R | 23 | 48 | 2·04 | 5 | 128 | 7 | 14·7 | 7·8 |
| 992 | ... ... ... | Nov. | 12 | M | 23 | 49 | 57·25 | ... | 148 | 53 | 24·9 | 8·5 |
| 993 | R Cassiopeæ Var. 3... | Oct. | 27 | R | 23 | 51 | 30·50 | ... | 39 | 22 | 8·6 | 9·5 |
| 994 | ... ... ... | Nov. | 8 | M | 23 | 51 | 45·33 | 5 | 152 | 20 | 38·6 | 9·0 |
| 995 | 28 Piscium ω ... | Sep. | 15 | M | 23 | 52 | 19·59 | ... | 83 | 53 | 22·0 | ... |
| | ... .. ... | „ | 16 | R | | 52 | 19·69 | 4 | | 53 | 23·0 | ... |
| | ... ... ... | Oct. | 7 | M | | 52 | 19·65 | ... | | 53 | 24·1 | ... |
| | ... ... ... | „ | 20 | R | | 52 | 19·65 | ... | | 43 | 24·1 | ... |
| | ... ... ... | „ | 25 | R | | 52 | 19·75 | ... | | 53 | 23·4 | ... |
| | ... ... ... | „ | 26 | R | | 52 | 19·74 | ... | | 53 | 23·7 | ... |
| | ... ... ... | „ | 28 | R | | 52 | 19·70 | ... | | 53 | 23·0 | ... |
| | ... ... ... | Nov. | 2 | M | | 52 | 19·70 | ... | | 53 | 24·7 | ... |
| | ... ... ... | „ | 3 | M | | 52 | 19·66 | ... | | 53 | 22·2 | ... |
| | ... .. ... | „ | 4 | M | | 52 | 19·63 | ... | | 53 | 24·2 | ... |
| | ... ... ... | „ | 10 | M | | 52 | 19·69 | ... | | 26 | 24·1 | .. |
| 996 | 9686 Lacaille ... | Sep. | 20 | R | 23 | 53 | 32·51 | 5 | 143 | 51 | 14·9 | 7·0 |
| | ... ... ... | Oct. | 4 | M | | 53 | 32·44 | 5 | | 51 | 16·6 | 7·1 |
| | ... ... ... | Nov. | 7 | M | | 53 | 32·38 | ... | | 51 | 14·5 | 6·7 |
| 997 | .. ... ... | Oct. | 22 | R | 23 | 55 | 58·44 | 5 | 130 | 17 | 1·1 | 9·0 |
| | ... ... ... | „ | 24 | R | | 55 | 58·48 | ... | | 17 | 1·5 | 9·3 |
| 998 | ... ... ... | Nov. | 11 | M | 23 | 56 | 7·64 | 5 | 124 | 7 | 46·0 | 8·0 |
| 999 | 10994 Taylor ... | Sep. | 29 | R | 23 | 57 | 47·27 | ... | 147 | 36 | 0·5 | 7·7 |
| 1000 | 9721 Lacaille ... | Nov. | 12 | M | 23 | 59 | 15·72 | 3 | 139 | 50 | 3·3 | 6·9 |

# MEAN POSITIONS OF STARS

OBSERVED WITH THE

# MADRAS MERIDIAN CIRCLE

IN THE YEAR

1864.

REDUCED TO JANUARY 1. OF THAT YEAR.

*Mean Positions of Stars for 1864 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 1 | 11010 Taylor ... ... | 7·9 | 1 | 0 | 0 | 28·80 | 147 | 35 | 39·1 | 1 | 0·86 |
| 2 | ... ... ... ... | 9·1 | 1 | 0 | 0 | 42·06 | 151 | 23 | 53·2 | 1 | 0·85 |
| 3 | 21 Androm α (*Alpherat*)... | 2·0 | ... | 0 | 1 | 21·68 | 61 | 39 | 40·0 | 9 | 0·84 |
| 4 | 9739 Lacaille ... ... | 7·6 | 2 | 0 | 2 | 4·03 | 130 | 29 | 36·3 | 2 | 0·75 |
| 5 | 7 Taylor ... ... ... | 7·1 | 1 | 0 | 2 | 57·47 | 93 | 12 | 4·6 | 1 | 0·71 |
| 6 | 3 Lacaille ... ... ... | 6·6 | 1 | 0 | 6 | 0·66 | 148 | 40 | 15·3 | 1 | 0·84 |
| 7 | 88 Pegasi γ (*Algenib*) ... | 2·7 | ... | 0 | 6 | 14·08 | 75 | 34 | 23·5 | 9 | 0·82 |
| 8 | ... ... ... ... | 9·5 | 2 | 0 | 6 | 39·45 | 131 | 7 | 1·2 | 2 | 0·75 |
| 9 | ... ... ... ... | 8·7 | 1 | 0 | 9 | 22·56 | 149 | 31 | 50·5 | 1 | 0·85 |
| 10 | ... ... ... ... | 9·0 | 2 | 0 | 9 | 33·24 | 153 | 55 | 7·1 | 2 | 0·86 |
| 11 | 41 Lacaille ... ... | 8·1 | 2 | 0 | 12 | 33·58 | 130 | 52 | 3·0 | 2 | 0·78 |
| 12 | ... ... ... ... | 8·7 | 3 | 0 | 12 | 47·29 | 150 | 26 | 38·8 | 3 | 0·81 |
| 13 | 41 Piscium *d* ... ... | 5·6 | 2 | 0 | 13 | 36·03 | 82 | 33 | 55·0 | 2 | 0·71 |
| 14 | ... ... ... ... | 9·0 | 1 | 0 | 18 | 31·22 | 152 | 57 | 39·5 | 1 | 0·85 |
| 15 | 81 Lacaille ... ... | 7·2 | 1 | 0 | 18 | 38·22 | 130 | 0 | 39·9 | 1 | 0·74 |
| 16 | 12 Ceti ... ... ... | 6·4 | ... | 0 | 23 | 5·86 | 94 | 42 | 34·7 | 9 | 0·87 |
| 17 | T Piscium Var. 3 ... ... | 10·5 | 1 | 0 | 24 | 57·60 | 76 | 9 | 0·4 | 1 | 0·82 |
| 18 | ... ... ... ... | 8·2 | 3 | 0 | 27 | 7·86 | 76 | 14 | 8·1 | 3 | 0·72 |
| 19 | 132 Lacaille ... ... | 9·0 | 1 | 0 | 27 | 18·38 | 151 | 53 | 55·9 | 1 | 0·85 |
| 20 | 970 Lalande ... .. | 7·7 | 1 | 0 | 31 | 4·54 | 80 | 55 | 9·4 | 1 | 0·93 |
| 21 | 1010 Lalande ... ... | 9·3 | 2 | 0 | 32 | 15·51 | 82 | 32 | 27·4 | 2 | 0·82 |
| 22 | 18 Cassiopeæ α Var. 2 ... | 2·5 | ... | 0 | 32 | 48·14 | 34 | 12 | 34·7 | 1 | 0·92 |
| 23 | 16 Ceti β ... ... ... | 2·0 | ... | 0 | 36 | 45·65 | 108 | 44 | 1·4 | 11 | 0·80 |
| 24 | 0.628 W. B. E ... ... | 9·3 | ... | 0 | 36 | 54·12 | 93 | 40 | 29·9 | 1 | 0·85 |
| 25 | ... ... ... ... | 9·0 | 2 | 0 | 39 | 54·00 | 150 | 44 | 54·7 | 2 | 0·86 |
| 26 | 58 Piscium ... .. | 5·0 | 1 | 0 | 39 | 55·34 | 78 | 46 | 8·8 | 1 | 0·78 |
| 27 | 63 Piscium δ ... ... | 5·0 | ... | 0 | 41 | 37·67 | 83 | 9 | 21·5 | 3 | 0·73 |
| 28 | 253 Lacaille ... ... | 6·0 | 1 | 0 | 47 | 57·75 | 153 | 30 | 30·3 | 1 | 0·85 |
| 29 | ... ... ... ... | 9·6 | 1 | 0 | 48 | 55·25 | 153 | 49 | 48·6 | 1 | 0·91 |
| 30 | 2 Ursæ Minoris ... ... | 4·4 | ... | 0 | 50 | 44·32 | 4 | 28 | 29·4 | 2 | 0·80 |
| 31 | 0.897 W. B. E .. .. | 9·2 | 3 | 0 | 52 | 12·34 | 92 | 49 | 55·1 | 3 | 0·90 |
| 32 | 271 Lacaille ... ... | 7·5 | 1 | 0 | 52 | 42·54 | 151 | 25 | 58·2 | 1 | [illegible] |
| 33 | 14 B. P. L ... ... ... | 6·2 | .. | 0 | 53 | 58·25 | 3 | 34 | 59·8 | 1 | [illegible] |
| 34 | 70 Piscium ... .. | 6·9 | 1 | 0 | 55 | 2·48 | 82 | 47 | 38·2 | 1 | 0·92 |
| 35 | 71 Piscium ε ... | 4·5 | .. | 0 | 55 | 53·21 | 82 | 50 | 25·3 | 8 | 0·54 |

17.—T Piscium Var. 3.—Period irregular.—Range 9·5 to 11th magnitude.
20.—21.—Comparison stars for Ariadne in 1861.
22.—α Cassiopeæ Var. 2.—Irregular.—Range 2·2 to 2·8 magnitude.
24.—Comparison star for Europa in 1861.
30.—12 B. P. L.
31.—Comparison star for Europa in 1862.
33.—195 Groombridge.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. Annual Precession. | In Right Ascension. Secular Variation. | In Right Ascension. Proper Motion. | In Polar Distance. Annual Precession. | In Polar Distance. Secular Variation. | In Polar Distance. Proper Motion. | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | s | s | s | " | " | " | |
| 1 | 11010 Taylor ... | + 3·0677 | − 0·0462 | ... | − 20·055 | + 0·010 | ... | 8377 |
| 2 | ... ... .. | + 3·0646 | − 0·0526 | ... | − 20·055 | + 0·010 | ... | ... |
| 3 | 21 Andromedæ α ... | + 3·0763 | + 0·0182 | + 0·009 | − 20·055 | + 0·013 | + 0·15 | 4 |
| 4 | 9739 Lacaille .. | + 3·0618 | − 0·0233 | ... | − 20·054 | + 0·013 | ... | ... |
| 5 | 7 Taylor ... ... | + 3·0711 | + 0·0004 | ... | − 20·053 | + 0·015 | ... | 12 |
| 6 | 3 Lacaille ... .. | + 3·0135 | − 0·0449 | ... | − 20·048 | + 0·021 | ... | ... |
| 7 | 88 Pegasi γ ... ... | + 3·0813 | + 0·0100 | 0·000 | − 20·048 | + 0·022 | + 0·02 | 26 |
| 8 | ... ... .. | + 3·0382 | − 0·0232 | ... | − 20·046 | + 0·022 | ... | ... |
| 9 | ... ... ... | + 2·9792 | − 0·0452 | ... | − 20·038 | + 0·027 | ... | ... |
| 10 | ... .. ... | + 2·9583 | − 0·0540 | ... | − 20·037 | + 0·027 | ... | ... |
| 11 | 41 Lacaille ... ... | + 3·0087 | − 0·0221 | ... | − 20·025 | + 0·033 | ... | ... |
| 12 | ... ... ... | + 2·9406 | − 0·0453 | ... | − 20·024 | + 0·033 | ... | ... |
| 13 | 41 Piscium d... .. | + 3·0824 | + 0·0066 | − 0·002 | − 20·019 | + 0·036 | − 0·01 | 66 |
| 14 | ... .. ... | + 2·8606 | − 0·0472 | ... | − 19·989 | + 0·043 | ... | ... |
| 15 | 81 Lacaille ... .. | + 2·9809 | − 0·0205 | ... | − 19·989 | + 0·044 | ... | ... |
| 16 | 12 Ceti ... ... | + 3·0609 | + 0·0008 | − 0·002 | − 19·954 | + 0·055 | + 0·01 | 112 |
| 17 | T Piscium Var. 3 .. | + 3·1079 | + 0·0108 | ... | − 19·936 | + 0·058 | ... | .. |
| 18 | ... ... .. | + 3·1108 | + 0·0109 | ... | − 19·915 | + 0·063 | ... | ... |
| 19 | 132 Lacaille ... .. | + 2·7745 | − 0·0413 | ... | − 19·913 | + 0·067 | ... | ... |
| 20 | 970 Lalande ... .. | + 3·1010 | + 0·0085 | .. | − 19·871 | + 0·070 | ... | ... |
| 21 | 1010 Lalande .. | + 3·0967 | + 0·0076 | | − 19·856 | + 0·072 | ... | ... |
| 22 | 18 Cassiopeæ α Var. 2 | + 3·3525 | + 0·0353 | + 0·006 | − 19·850 | + 0·080 | + 0·01 | 169 |
| 23 | 16 Ceti β ... .. | + 2·9996 | − 0·0055 | + 0·013 | − 19·798 | + 0·080 | − 0·02 | 196 |
| 24 | 0 628 W. B. E. ... | + 3·0575 | + 0·0020 | .. | − 19·790 | + 0·080 | ... | ... |
| 25 | ... ... . | + 2·6586 | − 0·0340 | .. | − 19·752 | + 0·075 | .. | ... |
| 26 | 58 Piscium ... .. | + 3·1181 | + 0·0101 | 0·000 | − 19·752 | + 0·087 | 0·00 | 213 |
| 27 | 63 Piscium δ .. ... | + 3·1010 | + 0·0077 | + 0·003 | − 19·725 | + 0·090 | + 0·05 | 222 |
| 28 | 253 Lacaille ... .. | + 2·5123 | − 0·0827 | ... | − 19·617 | + 0·084 | ... | 231 |
| 29 | .. ... .. | + 2·4957 | − 0·0823 | .. | − 19·600 | + 0·085 | ... | ... |
| 30 | 2 Ursæ Minoris .. | + 6·8236 | + 1·2850 | + 0·065 | − 19·565 | + 0·227 | + 0·01 | 262 |
| 31 | 0 897 W. B. E. .. | + 3·0572 | + 0·0031 | ... | − 19·537 | + 0·109 | .. | .. |
| 32 | 271 Lacaille ... ... | + 2·5123 | − 0·0280 | ... | − 19·522 | + 0·092 | ... | 276 |
| 33 | 14 R. P. L. ... .. | + 8·0656 | + 1·0725 | − 0·171 | − 19·502 | + 0·282 | − 0·02 | 273 |
| 34 | 70 Piscium ... .. | + 3·1123 | + 0·0086 | − 0·003 | − 19·479 | + 0·116 | + 0·17 | 281 |
| 35 | 71 Piscium ε .. | + 3·1125 | + 0·0087 | − 0·002 | − 19·462 | + 0·119 | 0·00 | 288 |

16—33.—Proper motions adopted from "Greenwich Catalogue."
31.—Proper motion in Polar Distance taken from "Greenwich Catalogue."

## *Mean Positions of Stars for 1864 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | *h.* | *m.* | *s.* | ° | ′ | ″ | | |
| 36 | 29 Ceti ... ... ... | 6·7 | 1 | 1 | 0 | 58·09 | 88 | 43 | 8·5 | 1 | 0·85 |
| 37 | 33 Ceti ... ... ... | 6·3 | ... | 1 | 3 | 33·56 | 88 | 16 | 46·1 | 3 | 0·00 |
| 38 | 86 Piscium 3 (1st) ... | 6·0 | ... | 1 | 6 | 37·58 | 53 | 8 | 38·8 | 2 | 0·77 |
| 39 | 1 Urs. Min. α (*Polaris*) ... | 2·0 | ... | 1 | 9 | 18·30 | 1 | 24 | 56·6 | 8 | 0·45 |
| 40 | ... ... ... ... | 8·1 | 2 | 1 | 17 | 0·19 | 96 | 31 | 26·3 | 2 | 0·87 |
| 41 | 45 Ceti $\theta^1$ ... ... ... | 4·0 | ... | 1 | 17 | 13·51 | 98 | 53 | 11·6 | 6 | 0·45 |
| 42 | ... ... ... ... | 7·6 | 1 | 1 | 18 | 53·11 | 151 | 20 | 23·0 | 1 | 0·93 |
| 43 | ... ... ... ... | 8·2 | 1 | 1 | 23 | 28·19 | 87 | 43 | 58·8 | 1 | 0·84 |
| 44 | 99 Piscium η ... ... | 4·5 | ... | 1 | 24 | 12·55 | 75 | 21 | 24·9 | 10 | 0·02 |
| 45 | ... ... ... ... | 8·6 | 1 | 1 | 25 | 44·66 | 150 | 21 | 41·4 | 1 | 0·86 |
| 46 | 514 Taylor ... ... | 6·1 | 2 | 1 | 28 | 33·59 | 73 | 15 | 51·3 | 2 | 0·92 |
| 47 | ... ... ... ... | 9·0 | 1 | 1 | 29 | 1·31 | 150 | 42 | 35·1 | 1 | 0·93 |
| 48 | ... ... ... ... | 8·0 | 1 | 1 | 31 | 23·00 | 130 | 52 | 17·8 | 1 | 0·89 |
| 49 | α Eridani (*Achernar*) ... | 1·0 | ... | 1 | 32 | 38·92 | 147 | 55 | 45·6 | 3 | 0·92 |
| 50 | 106 Piscium ν ... . | 4·7 | ... | 1 | 34 | 21·29 | 85 | 12 | 7·6 | 6 | 0·88 |
| 51 | 503 Lacaille ... ... | 7·7 | 1 | 1 | 35 | 42·98 | 151 | 41 | 18·8 | 1 | 0·55 |
| 52 | 110 Piscium ο ... ... | 4·7 | ... | 1 | 38 | 12·78 | 81 | 31 | 42·7 | 4 | 0·86 |
| 53 | ... ... ... ... | 9·1 | 1 | 1 | 38 | 33·55 | 152 | 2 | 52·8 | 1 | 0·94 |
| 54 | 516 Lacaille ... ... | 7·0 | 2 | 1 | 39 | 58·39 | 151 | 42 | 9·2 | 2 | 0·88 |
| 55 | ... ... ... ... | 9·4 | 1 | 1 | 46 | 9·24 | 148 | 57 | 57·1 | 1 | 0·85 |
| 56 | V Piscium Var. 5... ... | 10·0 | 1 | 1 | 47 | 7·59 | 81 | 53 | 9·4 | 1 | 0·91 |
| 57 | 6 Arietis β.. ... ... | 2·7 | ... | 1 | 47 | 7·90 | 69 | 51 | 31·7 | 7 | 0·88 |
| 58 | ... ... ... ... | 9·3 | 2 | 1 | 48 | 32·81 | 150 | 5 | 13·5 | 2 | 0·89 |
| 59 | 582 Lacaille ... ... | 8·1 | 1 | 1 | 50 | 54·77 | 145 | 44 | 21·5 | 1 | 0·94 |
| 60 | 593 Lacaille ... ... | 8·0 | .. | 1 | 52 | 2·53 | 149 | 8 | 13·6 | 1 | 0·01 |
| 61 | ... ... ... ... | 9·0 | 2 | 1 | 54 | 52·52 | 130 | 55 | 41·3 | 2 | 0·85 |
| 62 | 673 Taylor ... ... | 6·0 | 1 | 1 | 56 | 15·31 | 72 | 24 | 8·3 | 1 | 0·86 |
| 63 | ... ... ... ... | 9·3 | 2 | 1 | 59 | 23·52 | 150 | 2 | 31·5 | 2 | 0·89 |
| 64 | 13 Arietis α ... ... | 2·0 | ... | 1 | 59 | 30·67 | 67 | 10 | 58·2 | 7 | 0·89 |
| 65 | 697 Taylor ... ... | 6·7 | 1 | 2 | 1 | 45·88 | 145 | 48 | 57·4 | 1 | 0·01 |
| 66 | ... ... ... ... | 9·3 | 2 | 2 | 1 | 55·01 | 130 | 2 | 28·3 | 2 | 0·81 |
| 67 | 677 Lacaille ... .. | 8·0 | 1 | 2 | 6 | 55·77 | 149 | 47 | 35·4 | 1 | 0·81 |
| 68 | ... ... ... .. | 9·7 | 1 | 2 | 6 | 58·76 | 148 | 39 | 29·4 | 1 | 0·82 |
| 69 | 754 Taylor... ... .. | 8·9 | 2 | 2 | 9 | 11·75 | 147 | 58 | 53·7 | 2 | 0·46 |
| 70 | 67 Ceti ... ... ... | 6·0 | ... | 2 | 10 | 12·05 | 97 | 3 | 2·8 | 7 | 0·91 |

37.—Used with Mars in opposition in 1862 for investigation of the constant of Solar Parallax.
56.—V Piscium Var. 5.—Supposed to vary between 6th and 9th magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 36 | 29 Ceti ... . | + 3·0800 | + 0·0058 | + 0·010 | − 19·349 | + 0·126 | + 0·46 | 324 |
| 37 | 33 Ceti ... .. | + 3·0830 | + 0·0062 | − 0·003 | − 19·288 | + 0·131 | + 0·02 | 344 |
| 38 | 86 Piscium ζ (1st) ... | + 3·1181 | + 0·0090 | + 0·008 | − 19·213 | + 0·139 | + 0·07 | 368 |
| 39 | 1 Urs. Min. α (*Polaris*) | + 18·8156 | + 12·6804 | + 0·065 | − 19·145 | + 0·825 | 0·00 | 390 |
| 40 | ... ... .. | + 3·0217 | + 0·0028 | ... | − 18·933 | + 0·153 | ... | ... |
| 41 | 45 Ceti θ[1] ... ... | + 3·0029 | + 0·0018 | − 0·007 | − 18·928 | + 0·154 | + 0·22 | 420 |
| 42 | ... ... .. | + 3·2467 | − 0·0173 | ... | − 18·870 | + 0·119 | ... | ... |
| 43 | ... ... .. | + 3·0909 | + 0·0073 | ... | − 18·740 | + 0·169 | ... | ... |
| 44 | 99 Piscium η ... | + 3·1976 | + 0·0142 | 0·000 | − 18·717 | + 0·176 | 0·00 | 453 |
| 45 | ... ... .. | + 2·2133 | − 0·0148 | ... | − 18·668 | + 0·126 | ... | ... |
| 46 | 514 Taylor .. | + 3·2236 | + 0·0154 | ... | − 18·576 | + 0·185 | ... | 477 |
| 47 | ... ... .. | + 2·1694 | − 0·0135 | ... | − 18·561 | + 0·128 | ... | ... |
| 48 | ... ... .. | + 2·6229 | − 0·0101 | ... | − 18·482 | + 0·157 | ... | ... |
| 49 | α Eridani (*Achernar*). | + 2·2326 | − 0·0128 | + 0·008 | − 18·439 | + 0·137 | + 0·07 | 507 |
| 50 | 106 Piscium ν ... | + 3·1169 | + 0·0091 | − 0·004 | − 18·380 | + 0·191 | − 0·04 | 518 |
| 51 | 503 Lacaille ... ... | + 2·0654 | − 0·0104 | ... | − 18·332 | + 0·130 | ... | ... |
| 52 | 110 Piscium ο ... | + 3·1548 | + 0·0111 | + 0·006 | − 18·241 | + 0·190 | − 0·01 | 537 |
| 53 | ... ... ... | + 2·0216 | − 0·0089 | ... | − 18·229 | + 0·131 | ... | ... |
| 54 | 516 Lacaille ... ... | + 2·0228 | − 0·0085 | ... | − 18·177 | + 0·133 | ... | 543 |
| 55 | ... ... ... | + 2·0792 | − 0·0062 | ... | − 17·942 | + 0·144 | ... | ... |
| 56 | V Piscium Var. 5 ... | + 3·1580 | + 0·0111 | ... | − 17·904 | + 0·216 | ... | ... |
| 57 | 6 Arietis β ... ... | + 3·2930 | + 0·0183 | + 0·002 | − 17·904 | + 0·226 | + 0·11 | 577 |
| 58 | ... ... ... | + 2·0121 | − 0·0067 | ... | − 17·847 | + 0·142 | ... | ... |
| 59 | 582 Lacaille ... | + 2·1588 | − 0·0081 | ... | − 17·752 | + 0·155 | ... | ... |
| 60 | 593 Lacaille ... ... | + 2·0214 | − 0·0061 | ... | − 17·706 | + 0·147 | ... | ... |
| 61 | ... ... .. | + 2·5151 | − 0·0069 | ... | − 17·588 | + 0·184 | ... | ... |
| 62 | 673 Taylor ... .. | + 3·2781 | + 0·0167 | ... | − 17·530 | + 0·209 | ... | 632 |
| 63 | ... ... .. | + 1·9176 | − 0·0031 | ... | − 17·395 | + 0·146 | ... | ... |
| 64 | 13 Arietis α ... ... | + 3·3523 | + 0·0208 | + 0·012 | − 17·390 | + 0·252 | + 0·15 | 648 |
| 65 | 697 Taylor ... .. | + 2·0777 | − 0·0053 | ... | − 17·290 | + 0·161 | ... | 669 |
| 66 | ... ... ... | + 2·5022 | − 0·0058 | ... | − 17·283 | + 0·192 | ... | ... |
| 67 | 677 Lacaille ... .. | + 1·8641 | − 0·0011 | ... | − 17·057 | + 0·150 | ... | ... |
| 68 | ... ... .. | + 1·9160 | − 0·0021 | ... | − 17·055 | + 0·154 | ... | ... |
| 69 | 754 Taylor . .. | + 1·9296 | − 0·0021 | ... | − 16·952 | + 0·157 | ... | ... |
| 70 | 67 Ceti .. .. | + 2·9831 | + 0·0049 | + 0·008 | − 16·905 | + 0·242 | + 0·14 | 704 |

36—38—Proper motions adopted from "*Greenwich Catalogue.*"

## *Mean Positions of Stars for 1864 January 1st.*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 71 | 68 Ceti *o* Var. 1 (*Mira*) ... | Var. | 3 | 2 | 12 | 28·68 | 93 | 35 | 52·2 | 3 | 0·54 |
| 72 | ... ... ... ... | 8·0 | 1 | 2 | 16 | 23·72 | 151 | 18 | 24·7 | 1 | 0·93 |
| 73 | 818 Taylor... ... ... | 7·5 | 1 | 2 | 19 | 8·13 | 147 | 25 | 59·7 | 1 | 0·01 |
| 74 | ... ... ... ... | 8·5 | ... | 2 | 20 | 10·68 | 146 | 32 | 43·2 | 2 | 0·46 |
| 75 | 73 Ceti ξ² ... ... ... | 4·5 | ... | 2 | 20 | 55·83 | 82 | 9 | 5·3 | 9 | 0·72 |
| 76 | λ Horologii ... ... | 6·0 | 1 | 2 | 21 | 6·12 | 150 | 55 | 20·6 | 1 | 0·93 |
| 77 | ... ... ... ... | 8·2 | 1 | 2 | 24 | 27·94 | 147 | 2 | 45·3 | 1 | 0·95 |
| 78 | 782 Lacaille ... ... | 7·4 | 2 | 2 | 26 | 13·19 | 148 | 24 | 55·0 | 2 | 0·44 |
| 79 | ... ... ... ... | 9·5 | 1 | 2 | 29 | 10·94 | 147 | 37 | 29·6 | 1 | 0·91 |
| 80 | 31 Arietis ... ... ... | 6·5 | 1 | 2 | 29 | 12·94 | 78 | 8 | 40·0 | 2 | 0·94 |
| 81 | ... ... ... ... | 9·8 | 2 | 2 | 30 | 45·40 | 147 | 34 | 54·5 | 2 | 0·45 |
| 82 | ... ... ... ... | 9·6 | 1 | 2 | 31 | 15·88 | 151 | 39 | 24·0 | 1 | 0·93 |
| 83 | II. 556. W. B. N.... ... | 8·3 | 2 | 2 | 33 | 10·21 | 74 | 54 | 0·0 | 2 | 0·90 |
| 84 | ... ... ... ... | 8·7 | 1 | 2 | 33 | 59·16 | 74 | 56 | 35·3 | 1 | 0·86 |
| 85 | 849 Lacaille (1st)... ... | 7·9 | 1 | 2 | 36 | 0·55 | 150 | 9 | 10·0 | 1 | 0·01 |
| 86 | 86 Ceti γ ... ... ... | 3·7 | ... | 2 | 36 | 15·35 | 87 | 20 | 22·6 | 8 | 0·69 |
| 87 | 38 Arietis ... ... ... | 5·1 | 2 | 2 | 37 | 33·12 | 78 | 7 | 44·0 | 3 | 0·89 |
| 88 | II. 676 W. B. N. ... ... | 8·1 | 3 | 2 | 40 | 8·14 | 75 | 20 | 24·5 | 3 | 0·90 |
| 89 | 42 Arietis π ... ... | 5·4 | 2 | 2 | 41 | 42·58 | 73 | 6 | 15·7 | 2 | 0·10 |
| 90 | ... ... ... ... | 8·8 | 2 | 2 | 43 | 17·90 | 148 | 0 | 37·2 | 2 | 0·02 |
| 91 | II. 733. W. B. E. ... ... | 9·5 | 2 | 2 | 43 | 19·15 | 76 | 2 | 13·0 | 2 | 0·90 |
| 92 | ... ... ... ... | 9·2 | 1 | 2 | 45 | 15·73 | 76 | 27 | 53·8 | 1 | 0·03 |
| 93 | 969 Taylor ... ... | 7·5 | 2 | 2 | 45 | 37·40 | 74 | 4 | 28·3 | 2 | 0·89 |
| 94 | 87 Rumker ... ... | 5·9 | 1 | 2 | 46 | 0·94 | 153 | 22 | 19·5 | 1 | 0·93 |
| 95 | 5380 Lalande ... .. | 8·1 | 2 | 2 | 47 | 42·02 | 74 | 14 | 41·4 | 2 | 0·90 |
| 96 | 941 Lacaille ... ... | 6·5 | 2 | 2 | 50 | 26·45 | 146 | 26 | 5·9 | 2 | 0·02 |
| 97 | ... ... ... ... | 8·6 | 1 | 2 | 52 | 21·64 | 150 | 17 | 8·5 | 1 | 0·01 |
| 98 | ... ... ... ... | 8·4 | 1 | 2 | 53 | 15·55 | 146 | 44 | 28·5 | 1 | 0·95 |
| 99 | 969 Lacaille ... ... | 7·9 | 1 | 2 | 54 | 53·50 | 144 | 13 | 57·3 | 1 | 0·04 |
| 100 | 92 Ceti α (*Menkar*) .. | 2·3 | .. | 2 | 55 | 10·32 | 86 | 28 | 46·6 | 7 | 0·80 |
| 101 | 25 Persei ρ Var. 2. .. | 4·0 | ... | 2 | 56 | 28·54 | 51 | 41 | 23·1 | 1 | 0·01 |
| 102 | 1037 Taylor ... .. | 9·2 | 2 | 2 | 56 | 54·10 | 150 | 21 | 34·7 | 2 | 0·08 |
| 103 | 26 Persei β Var. 1. (*Algol*) | 2·7 | .. | 2 | 59 | 19·81 | 49 | 34 | 17·4 | 2 | 0·88 |
| 104 | 1047 Taylor ... ... | 7·3 | 2 | 2 | 59 | 51·50 | 151 | 19 | 53·2 | 2 | 0·51 |
| 105 | 1062 Taylor ... .. | 6·0 | 1 | 3 | 0 | 25·00 | 150 | 16 | 1·7 | 1 | 0·04 |

70.— *o* Ceti Var. 1.—(*Mira*).—Period 331 days. Range, 2nd to 10th magnitude.
83—88, 91, 93—95.—Comparison stars for Victoria in 1861.
101.—ρ Persei Var. 2.—Changes irregularly from 3·5 to 4·3 magnitude.
103.—β Persei Var. 1. (*Algol*)—Period 2·867 days. Range, 2·5 to 4th magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension: Annual Precession. | In Right Ascension: Secular Variation. | In Right Ascension: Proper Motion. | In Polar Distance: Annual Precession. | In Polar Distance: Secular Variation. | In Polar Distance: Proper Motion | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | s | s | s | " | " | " | |
| 71 | 68 Ceti ο Var. 1 | + 3·0261 | + 0·0064 | − 0·001 | − 16·796 | + 0·248 | + 0·23 | 720 |
| 72 | .. .. | + 1·7026 | + 0·0036 | ... | − 16·607 | + 0·146 | .. | . |
| 73 | 818 Taylor .. | + 1·8778 | − 0·0001 | ... | − 16·472 | + 0·163 | ... | 753 |
| 74 | .. ... | + 1·9102 | − 0·0005 | ... | − 16·420 | + 0·167 | ... | ... |
| 75 | 73 Ceti ξ² | + 3·1783 | + 0·0117 | + 0·001 | − 16·382 | + 0·276 | + 0·02 | 760 |
| 76 | λ Horologii | + 1·6835 | + 0·0044 | ... | − 16·372 | + 0·149 | .. | 762 |
| 77 | ... .. | + 1·8565 | + 0·0008 | ... | − 16·201 | + 0·167 | ... | ... |
| 78 | 782 Lacaille ... .. | + 1·7760 | + 0·0026 | ... | − 16·110 | + 0·161 | ... | ... |
| 79 | ... .. | + 1·7943 | + 0·0024 | ... | − 15·954 | + 0·166 | .. | ... |
| 80 | 31 Arietis | + 3·2422 | + 0·0137 | + 0·017 | − 15·952 | + 0·294 | + 0·09 | 798 |
| 81 | ... .. | + 1·7848 | + 0·0027 | ... | − 15·870 | + 0·166 | ... | ... |
| 82 | ... .. | + 1·5524 | + 0·0084 | ... | − 15·843 | + 0·146 | ... | ... |
| 83 | Π 556 W. B. N .. | + 3·2957 | + 0·0154 | ... | − 15·741 | + 0·305 | ... | ... |
| 84 | .. ... .. | + 3·2960 | + 0·0154 | ... | − 15·696 | + 0·306 | ... | .. |
| 85 | 849 Lacaille (1st) ... | + 1·6056 | + 0·0071 | ... | − 15·585 | + 0·154 | ... | ... |
| 86 | 86 Ceti γ ... | + 3·1112 | + 0·0094 | − 0·011 | − 15·572 | + 0·294 | + 0·19 | 837 |
| 87 | 38 Arietis ... | + 3·2505 | + 0·0137 | + 0·008 | − 15·500 | + 0·308 | + 0·10 | 844 |
| 88 | Π 676 W. B. N | + 3·2971 | + 0·0150 | ... | − 15·355 | + 0·315 | ... | ... |
| 89 | 42 Arietis π .. | + 3·3355 | + 0·0163 | − 0·002 | − 15·266 | + 0·322 | − 0·02 | 870 |
| 90 | ... | + 1·6726 | + 0·0057 | . | − 15·176 | + 0·167 | ... | .. |
| 91 | Π 733 W. B. E | + 3·2895 | + 0·0146 | .. | − 15·174 | + 0·320 | ... | .. |
| 92 | .. . | + 3·2846 | + 0·0144 | ... | − 15·063 | + 0·322 | .. | .. |
| 93 | 969 Taylor . | + 3·3244 | + 0·0157 | . | − 15·042 | + 0·326 | ... | 892 |
| 94 | 87 Rumker .. .. | + 1·3050 | + 0·0158 | ... | − 15·019 | + 0·132 | .. | 895 |
| 95 | 5380 Lalande .. | + 3·3241 | + 0·0156 | . | − 14·921 | + 0·330 | .. | ... |
| 96 | 941 Lacaille .. | + 1·7078 | + 0·0053 | ... | − 14·760 | + 0·175 | ... | ... |
| 97 | .. .. ... | + 1·4716 | + 0·0107 | . | − 14·646 | + 0·153 | ... | .. |
| 98 | .. .. ... | + 1·6736 | + 0·0060 | .. | − 14·592 | + 0·174 | ... | .. |
| 99 | 969 Lacaille ... | + 1·7893 | + 0·0040 | ... | − 14·494 | + 0·186 | .. | ... |
| 100 | 92 Ceti α . .. | + 3·1294 | + 0·0098 | − 0·002 | − 14·476 | + 0·323 | + 0·11 | 940 |
| 101 | 25 Persei ρ Var. 2 | + 3·8074 | + 0·0332 | + 0·010 | − 14·398 | + 0·393 | + 0·11 | 953 |
| 102 | 1037 Taylor . | + 1·4332 | + 0·0116 | . | − 14·372 | + 0·152 | | |
| 103 | Persei β Var. 1 | + 3·8719 | + 0·0356 | − 0·002 | − 14·222 | + 0·405 | − 0·01 | 963 |
| 104 | 1047 Taylor .. | + 1·3441 | + 0·0139 | | − 14·190 | + 0·145 | .. | 968 |
| 105 | 1052 Taylor .. | + 1·4138 | + 0·0120 | ... | − 14·155 | + 0·152 | ... | 972 |

71 – 80 – 101.—Proper Motions from Mr. Stone's list, Vol. 33, "*Memoirs R. A. S.*"
75.—Proper Motions adopted from "*Greenwich Catalogue.*"

## *Mean Positions of Stars for* 1864 *January* 1*st*,

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 106 | 33 R. P. L. ... ... | 5·8 | ... | 3 | 0 | 42·11 | 5 | 34 | 52·8 | 1 | 0·42 |
| 107 | 57 Arietis δ ... ... | 4·2 | ... | 3 | 3 | 51·34 | 70 | 47 | 26·0 | 9 | 0·92 |
| 108 | 1007 Lacaille... ... ... | 7·0 | 1 | 3 | 4 | 48·78 | 152 | 14 | 28·7 | 1 | 0·05 |
| 109 | 1092 Taylor ... ... | 6·9 | 3 | 3 | 7 | 15·56 | 148 | 19 | 22·4 | 3 | 0·33 |
| 110 | ... ... ... ... | 9·0 | 1 | 3 | 7 | 16·15 | 145 | 40 | 32·5 | 1 | 0·95 |
| 111 | ... ... ... ... | 8·6 | 1 | 3 | 12 | 41·14 | 130 | 50 | 15·5 | 1 | 0·03 |
| 112 | 33 Persei α ... ... | 2·3 | ... | 3 | 14 | 37·57 | 40 | 37 | 34·5 | 3 | 0·92 |
| 113 | ... ... ... ... | 9·0 | 1 | 3 | 14 | 51·02 | 150 | 6 | 18·7 | 1 | 0·04 |
| 114 | 5² Reticuli ... ... | 6·1 | 2 | 3 | 15 | 15·71 | 153 | 1 | 38·0 | 2 | 0·06 |
| 115 | ... ... ... ... | 7·8 | 1 | 3 | 20 | 18·17 | 149 | 18 | 56·3 | 1 | 0·01 |
| 116 | ... ... ... ... | 7·4 | 2 | 3 | 20 | 34·35 | 149 | 28 | 29·8 | 2 | 0·04 |
| 117 | ... ... ... ... | 7·5 | 1 | 3 | 22 | 0·03 | 88 | 12 | 26·3 | 1 | 0·02 |
| 118 | 34 R. P. L. ... ... | 5·9 | ... | 3 | 22 | 16·24 | 3 | 47 | 27·2 | 3 | 0·62 |
| 119 | 1143 Lacaille ... ... | 5·7 | 1 | 3 | 27 | 0·67 | 153 | 25 | 6·5 | 2 | 0·05 |
| 120 | 1150 Lacaille ... ... | 7·7 | 1 | 3 | 28 | 26·56 | 152 | 28 | 17·6 | 1 | 0·95 |
| 121 | 1159 Lacaille ... ... | 6·9 | 2 | 3 | 30 | 16·33 | 151 | 28 | 32·9 | 2 | 0·03 |
| 122 | 1192 Lacaille . . ... | 8·5 | 1 | 3 | 34 | 58·48 | 147 | 43 | 46·9 | 1 | 0·03 |
| 123 | 1193 Lacaille ... ... | 8·1 | 1 | 3 | 35 | 15·49 | 146 | 35 | 14·0 | 1 | 0·01 |
| 124 | 1200 Lacaille ... ... | 6·9 | 1 | 3 | 36 | 24·39 | 146 | 40 | 30·9 | 2 | 0·05 |
| 125 | 17 Tauri (*Electra*) ... | 4·0 | ... | 3 | 36 | 48·28 | 66 | 18 | 59·2 | 1 | 0·01 |
| 126 | 25 Tauri η (*Alcyone*) .. | 3·5 | ... | 3 | 39 | 24·23 | 66 | 19 | 7·3 | 11 | 0·76 |
| 127 | 1318 Taylor ... ... | 5·6 | 2 | 3 | 42 | 30·15 | 155 | 14 | 8·4 | 2 | 0·06 |
| 128 | ... ... ... ... | 9·0 | 1 | 3 | 45 | 11·82 | 76 | 27 | 48·7 | 1 | 0·90 |
| 129 | ... ... ... ... | 8·8 | 2 | 3 | 46 | 32·38 | 146 | 33 | 39·1 | 2 | 0·02 |
| 130 | ... ... .. ... | 8·3 | 2 | 3 | 48 | 3·74 | 150 | 50 | 16·6 | 2 | 0·02 |
| 131 | 34 Eridani γ¹ ... ... | 3·3 | ... | 3 | 51 | 41·13 | 103 | 53 | 52·6 | 8 | 0·71 |
| 132 | 35 Tauri λ Var. 1... ... | 6·3 | 1 | 3 | 53 | 8·92 | 77 | 53 | 48·7 | 1 | 0·08 |
| 133 | ... . . ... .. | 7·9 | 1 | 3 | 53 | 40·29 | 143 | 8 | 23·6 | 1 | 0·01 |
| 134 | 1327 Lacaille ... .. | 5·9 | 3 | 3 | 54 | 18·85 | 153 | 51 | 28·4 | 3 | 0·35 |
| 135 | 36 Tauri . . . .. | 6·5 | 7 | 3 | 56 | 13·80 | 68 | 16 | 18·9 | 10 | 0·91 |
| 136 | 37 Tauri A¹ ... ... | 4·7 | .. | 3 | 56 | 39·51 | 68 | 17 | 36·3 | 1 | 0·79 |
| 137 | 1347 Lacaille ... .. | 7·6 | 2 | 3 | 58 | 6·87 | 149 | 2 | 34·8 | 2 | 0·03 |
| 138 | 1359 Lacaille ... ... | 9·2 | 2 | 4 | 0 | 0·71 | 147 | 50 | 4·2 | 2 | 0·04 |
| 139 | 1375 Lacaille .. .. | 9·0 | 2 | 4 | 2 | 54·37 | 148 | 50 | 45·8 | 2 | 0·06 |
| 140 | ... ... ... .. | 9·8 | 1 | 4 | 3 | 23·80 | 68 | 30 | 18·3 | 1 | 0·08 |

106.—595 Groombridge.
115.—642 Groombridge.
132.—λ Tauri Var. 1.—Period 3·96 days—Range, 3·5 to 4·3 magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number | Star | In Right Ascension. Annual Precession. | Secular Variation | Proper Motion. | In Polar Distance. Annual Precession. | Secular Variation. | Proper Motion. | Number in R. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | s | s | s | " | " | " | |
| 106 | 33 R. P. L. .. | + 12·7777 | + 1·5817 | … | − 14·138 | + 1·328 | + 0·12 | 960 |
| 107 | 57 Arietis δ .. .. | + 3·4069 | + 0·0171 | + 0·010 | − 13·940 | + 0·364 | 0·00 | 966 |
| 108 | 1007 Lacaille .. | + 1·2385 | + 0·0169 | … | − 13·880 | + 0·136 | .. | . |
| 109 | 1092 Taylor | + 1·4920 | + 0·0100 | … | − 13·724 | + 0·165 | … | 1002 |
| 110 | … … … | + 1·6442 | + 0·0069 | .. | − 13·724 | + 0·181 | … | .. |
| 111 | … … … | + 2·2110 | + 0·0012 | … | − 13·375 | + 0·246 | .. | . |
| 112 | 33 Persei α … … | + 4·2420 | + 0·0183 | + 0·002 | − 13·248 | + 0·472 | + 0·06 | 1043 |
| 113 | … … .. | + 1·3244 | + 0·0138 | … | − 13·233 | + 0·151 | .. | … |
| 114 | 3¹ Reticuli … .. | + 1·0943 | + 0·0203 | + 0·190 | − 13·206 | + 0·126 | − 0·05 | 1051 |
| 115 | … .. … | + 1·3442 | + 0·0131 | … | − 12·870 | + 0·156 | … | |
| 116 | | + 1·3314 | + 0·0133 | … | − 12·853 | + 0·155 | . | . |
| 117 | | + 3·1043 | + 0·0089 | … | − 12·757 | + 0·355 | … | . |
| 118 | 34 R. P. L. … … | + 18·6475 | + 3·1896 | + 0·136 | − 12·739 | + 2·105 | + 0·06 | 1061 |
| 119 | 1143 Lacaille .. | + 0·9736 | + 0·0227 | … | − 12·415 | + 0·117 | … | 1103 |
| 120 | 1150 Lacaille … | + 1·0476 | + 0·0203 | . | − 12·317 | + 0·126 | … | … |
| 121 | 1159 Lacaille . | + 1·1186 | + 0·0180 | .. | − 12·190 | + 0·135 | .. | . |
| 122 | 1192 Lacaille … | + 1·3647 | + 0·0120 | . | − 11·861 | + 0·165 | … | .. |
| 123 | 1193 Lacaille .. | + 1·4364 | + 0·0105 | … | − 11·841 | + 0·174 | … | |
| 124 | 1200 Lacaille … | + 1·4248 | + 0·0107 | … | − 11·759 | + 0·173 | . | |
| 125 | 17 Tauri (*Electra*) … | + 3·5478 | + 0·0180 | 0·000 | − 11·731 | + 0·424 | + 0·04 | 1147 |
| 126 | 25 Tauri η (*Alcyone*).. | + 3·5515 | + 0·0177 | − 0·001 | − 11·546 | + 0·430 | + 0·06 | 1166 |
| 127 | 1318 Taylor … … | + 0·6800 | + 0·0294 | + 0·050 | − 11·323 | + 0·097 | − 0·06 | 1197 |
| 128 | . . | + 3·3309 | + 0·0124 | . | − 11·128 | + 0·410 | . | . |
| 129 | … .. .. | + 1·3811 | + 0·0111 | … | − 11·029 | + 0·173 | … | |
| 130 | .. .. | + 1·0623 | + 0·0177 | . | − 10·918 | + 0·135 | … | |
| 131 | 34 Eridani γ¹ .. | + 2·7917 | + 0·0047 | + 0·003 | − 10·652 | + 0·351 | + 0·12 | 1234 |
| 132 | 35 Tauri λ Var. 1 | + 3·3160 | + 0·0115 | − 0·002 | − 10·542 | + 0·416 | + 0·02 | 1241 |
| 133 | . … . | + 1·5529 | + 0·0082 | … | − 10·503 | + 0·198 | . | .. |
| 134 | 1327 Lacaille .. | + 0·7474 | + 0·0250 | … | − 10·455 | + 0·097 | . | 1248 |
| 135 | 36 Tauri … .. | + 3·5761 | + 0·0164 | + 0·003 | − 10·312 | + 0·451 | − 0·01 | 1253 |
| 136 | 37 Tauri A¹ … … | + 3·5292 | + 0·0153 | + 0·004 | − 10·280 | + 0·446 | + 0·09 | 1257 |
| 137 | 1347 Lacaille .. | + 1·1510 | + 0·0148 | .. | − 10·170 | + 0·149 | … | |
| 138 | 1359 Lacaille . | + 1·2310 | + 0·0131 | | − 10·027 | + 0·160 | … | |
| 139 | 1375 Lacaille | + 1·1429 | + 0·0141 | … | − 9·806 | + 0·149 | . | .. |
| 140 | .. … | + 3·5319 | + 0·0147 | . | − 9·765 | + 0·454 | | … |

106.—The Proper Motion in Polar Distance taken from "*Greenwich Catalogue.*"
114.—127.—Proper Motions adopted from "*Stone's Catalogue.*"
118.—132.—135.—Proper Motions adopted from "*Greenwich Catalogue.*"

*Mean Positions of Stars for 1864 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | *h.* | *m.* | *s.* | ° | ′ | ″ | | |
| 141 | 37 Eridani ... ... | 5·6 | 1 | 4 | 3 | 44·58 | 97 | 16 | 55·3 | 1 | 0·01 |
| 142 | .. ... ... ... | 8·8 | 2 | 4 | 5 | 0·17 | 150 | 5 | 32·6 | 2 | 0·02 |
| 143 | 38 Eridani $o^1$ ... ... | 4·3 | ... | 4 | 5 | 13·65 | 97 | 11 | 41·4 | 3 | 0·34 |
| 144 | ... ... .. ... | 8·5 | 2 | 4 | 9 | 18·70 | 149 | 31 | 9·8 | 2 | 0·05 |
| 145 | ... ... ... ... | 8·0 | 1 | 4 | 9 | 46·60 | 129 | 18 | 57·0 | 1 | 0·89 |
| 146 | 1489 Taylor ... ... | 7·1 | 2 | 4 | 11 | 2·66 | 148 | 22 | 0·2 | 2 | 0·02 |
| 147 | 1425 Lacaille ... ... | 6·2 | 2 | 4 | 13 | 1·31 | 152 | 32 | 3·0 | 2 | 0·06 |
| 148 | U Tauri Var. 7 ... ... | 9·7 | 1 | 4 | 13 | 53·65 | 70 | 30 | 42·4 | 1 | 0·90 |
| 149 | T Tauri Var. 6 ... ... | 10·4 | 2 | 4 | 14 | 3·84 | 70 | 47 | 26·0 | 2 | 0·08 |
| 150 | $\epsilon$ Reticuli ... ... | 5·0 | 2 | 4 | 14 | 8·75 | 149 | 37 | 48·2 | 2 | 0·03 |
| 151 | 1513 Taylor ... ... | 6·7 | 2 | 4 | 14 | 18·26 | 151 | 17 | 2·7 | 2 | 0·49 |
| 152 | 61 Tauri $\delta^1$ ... .. | 4·0 | ... | 4 | 15 | 5·61 | 72 | 46 | 48·3 | 3 | 0·30 |
| 153 | 62 Tauri ... ... ... | 7·0 | ... | 4 | 15 | 47·90 | 66 | 1 | 11·1 | 2 | 0·97 |
| 154 | ... ... ... .. | 8·8 | 1 | 4 | 16 | 45·55 | 149 | 4 | 26·5 | 1 | 0·01 |
| 155 | 69 Tauri $\upsilon^1$ ... ... | 4·5 | ... | 4 | 18 | 10·38 | 67 | 29 | 55·5 | 7 | 0·94 |
| 156 | 74 Tauri $\epsilon$ ... ... ... | 3·7 | ... | 4 | 20 | 40·69 | 71 | 7 | 29·4 | 13 | 0·38 |
| 157 | R Tauri Var. 2 ... ... | 9·9 | 2 | 4 | 20 | 51·07 | 80 | 8 | 37·7 | 2 | 0·08 |
| 158 | ... ... ... ... | 10·2 | 2 | 4 | 22 | 21·67 | 80 | 21 | 14·7 | 2 | 0·49 |
| 159 | 1582 Taylor ... .. | 6·0 | 1 | 4 | 23 | 12·66 | 151 | 32 | 49·3 | 1 | 0·06 |
| 160 | 1519 Lacaille ... ... | 8·2 | 2 | 4 | 25 | 35·42 | 153 | 6 | 6·6 | 2 | 0·07 |
| 161 | 1520 Lacaille ... .. | 8·4 | 2 | 4 | 26 | 41·07 | 147 | 29 | 2·4 | 2 | 0·47 |
| 162 | 87 Tauri $\alpha$ (*Aldebaran*) ... | 1·0 | ... | 4 | 28 | 7·16 | 73 | 46 | 3·6 | 9 | 0·34 |
| 163 | R Reticuli Var. 1 ... ... | 8·5 | 1 | 4 | 32 | 8·35 | 153 | 18 | [illegible] | 1 | 0·11 |
| 164 | IV 696 W. B. N. ... ... | 9·2 | 4 | 4 | 32 | 36·03 | 66 | 27 | 30·2 | 4 | 0·96 |
| 165 | .. .. ... ... | 8·5 | 2 | 4 | 33 | 32·41 | 144 | 53 | 50·2 | 2 | 0·04 |
| 166 | IV 726 W. B. N. ... .. | 8·1 | 3 | 4 | 33 | 50·93 | 66 | 15 | 17·4 | 6 | 0·93 |
| 167 | 94 Tauri $\tau$ ... .. | 4·7 | ... | 4 | 34 | 5·05 | 67 | 18 | 27·6 | 7 | 0·93 |
| 168 | 95 Tauri ... ... ... | 6·5 | 1 | 4 | 35 | 0·01 | 66 | 10 | 22·0 | 1 | 0·89 |
| 169 | 1567 Lacaille ... .. | 5·8 | 3 | 4 | 35 | 11·17 | 152 | 20 | 47·0 | 3 | 0·07 |
| 170 | 1566 Lacaille ... ... | 7·8 | 1 | 4 | 35 | 46·00 | 148 | 23 | 26·3 | 1 | 0·01 |
| 171 | 1663 Taylor ... ... | 7·0 | 1 | 4 | 36 | 50·08 | 138 | 48 | 8·3 | 1 | 0·01 |
| 172 | 1582 Lacaille .. .. | 8·5 | 2 | 4 | 37 | 18·61 | 152 | 38 | 43·4 | 2 | [illegible] |
| 173 | ... ... ... ... | 9·3 | 2 | 4 | 40 | 19·23 | 151 | 20 | 52·6 | 2 | 0·06 |
| 174 | $\epsilon$ Doradûs ... .. | 6·3 | 3 | 4 | 42 | 18·43 | 149 | [illegible] | 0·6 | 3 | 0·05 |
| 175 | 1629 Lacaille .. ... | 6·5 | 2 | 4 | 43 | 42·36 | 153 | 28 | 32·7 | 2 | 0·07 |

148.—U Tauri Var. 7.—Period unknown.—Range, 9th to 10·5 magnitude.
149.—T Tauri Var. 6.—Period unknown.—Range, 9th to 13th magnitude.
157.—R Tauri Var. 2.—Period 325 days.—Range, 8th magnitude to invisibility.
163.—R Reticuli Var. 1.—Period 281 days.—Range, 7th magnitude to invisibility.
164—166.—Comparison stars used with Mars in 1864 for investigation of the constant of Solar Parallax.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 141 | 37 Eridani ... ... | + 2·9228 | + 0·0058 | − 0·002 | − 9·743 | + 0·377 | + 0·01 | 1284 |
| 142 | ... ... .. | + 1·0343 | + 0·0165 | .. | − 9·640 | + 0·136 | ... | ... |
| 143 | 38 Eridani ο¹ . | + 2·9240 | + 0·0058 | − 0·002 | − 9·629 | + 0·370 | − 0·07 | 1290 |
| 144 | ... ... . | + 1·0603 | + 0·0155 | ... | − 9·313 | + 0·141 | ... | ... |
| 145 | ... ... .. | + 2·1015 | + 0·0035 | ... | − 9·278 | + 0·276 | ... | ... |
| 146 | 1489 Taylor . . | + 1·1423 | + 0·0137 | ... | − 9·180 | + 0·152 | ... | 1325 |
| 147 | 1425 Lacaille .. | + 0·7752 | + 0·0210 | ... | − 9·025 | + 0·105 | ... | ... |
| 148 | U Tauri Var. 7 ... | + 3·4955 | + 0·0129 | ... | − 8·957 | + 0·460 | ... | ... |
| 149 | T Tauri Var. 6 ... | + 3·4891 | + 0·0128 | ... | − 8·944 | + 0·460 | ... | ... |
| 150 | ε Reticuli ... ... | + 1·0296 | + 0·0155 | ... | − 8·937 | + 0·139 | ... | 1344 |
| 151 | 1513 Taylor ... .. | + 0·8866 | + 0·0182 | ... | − 8·925 | + 0·120 | ... | 1345 |
| 152 | 61 Tauri δ¹ ... .. | + 3·4438 | + 0·0119 | + 0·004 | − 8·863 | + 0·455 | + 0·03 | 1346 |
| 153 | 62 Tauri .. | + 3·6064 | + 0·0146 | + 0·004 | − 8·807 | + 0·477 | + 0·01 | 1353 |
| 154 | ... ... ... | + 1·0630 | + 0·0146 | ... | − 8·731 | + 0·144 | ... | ... |
| 155 | 69 Tauri υ¹ ... | + 3·5722 | + 0·0138 | + 0·007 | − 8·620 | + 0·475 | + 0·05 | 1367 |
| 156 | 74 Tauri ε ... .. | + 3·4869 | + 0·0120 | + 0·005 | − 8·422 | + 0·466 | + 0·03 | 1376 |
| 157 | R Tauri Var. 2 .. | + 3·2830 | + 0·0092 | ... | − 8·408 | + 0·439 | ... | ... |
| 158 | ... .. ... | + 3·2790 | + 0·0090 | ... | − 8·287 | + 0·440 | ... | ... |
| 159 | 1582 Taylor ... . | + 0·8200 | + 0·0183 | ... | − 8·220 | + 0·113 | ... | 1400 |
| 160 | 1519 Lacaille ... | + 0·6570 | + 0·0212 | ... | − 8·030 | + 0·091 | ... | ... |
| 161 | 1520 Lacaille ... | + 1·1462 | + 0·0122 | ... | − 7·942 | + 0·157 | ... | .. |
| 162 | 87 Tauri α (*Aldebaran*). | + 3·4303 | + 0·0105 | + 0·004 | − 7·827 | + 0·464 | + 0·17 | 1420 |
| 163 | R Reticuli Var 1 .. | + 0·6055 | + 0·0210 | ... | − 7·502 | + 0·085 | ... | .. |
| 164 | IV 696 W. B. N. .. | + 3·6128 | + 0·0127 | ... | − 7·465 | + 0·493 | ... | ... |
| 165 | .. ... .. | + 1·3037 | + 0·0096 | ... | − 7·388 | + 0·180 | ... | ... |
| 166 | IV 720 W. B. N. .. | + 3·6192 | + 0·0127 | ... | − 7·363 | + 0·494 | ... | ... |
| 167 | 94 Tauri τ ... .. | + 3·5024 | + 0·0122 | 0·000 | − 7·343 | + 0·491 | + 0·02 | 1449 |
| 168 | 95 Tauri ... . | + 3·6224 | + 0·0125 | + 0·001 | − 7·269 | + 0·495 | 0·00 | 1453 |
| 169 | 1567 Lacaille .. | + 0·6931 | + 0·0156 | ... | − 7·254 | + 0·097 | ... | .. |
| 170 | 1568 Lacaille ... | + 1·0381 | + 0·0128 | .. | − 7·207 | + 0·144 | ... | .. |
| 171 | 1663 Taylor ... | + 1·0441 | + 0·0059 | .. | − 7·119 | + 0·227 | ... | ... |
| 172 | 1592 Lacaille .. | + 0·6541 | + 0·0189 | ... | − 7·080 | + 0·092 | ... | 1466 |
| 173 | ... ... .. | + 0·7715 | + 0·0163 | .. | − 6·833 | + 0·109 | ... | ... |
| 174 | α Doradûs ... . | + 0·5806 | + 0·0141 | ... | − 6·660 | + 0·125 | ... | 1489 |
| 175 | 1629 Lacaille .. | + 0·5403 | + 0·0197 | . | − 6·553 | + 0·077 | .. | ... |

153—168.—Proper motions adopted from "*Greenwich Catalogue.*"

*Mean Positions of Stars for 1864 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 176 | IV 995 W. B. N. ... ... | 8·0 | 8 | 4 | 45 | 6·56 | 66 | 3 | 9·8 | 9 | 0·93 |
| 177 | ... ... ... ... | 8·8 | 1 | 4 | 45 | 55·56 | 153 | 4 | 2·2 | 1 | 0·11 |
| 178 | IV 1018 W. B. N ... ... | 8·2 | 5 | 4 | 45 | 58·67 | 66 | 13 | 39·4 | 9 | 0·94 |
| 179 | 1656 Lacaille ... ... | 7·9 | 3 | 4 | 47 | 56·06 | 149 | 2 | 1·1 | 3 | 0·05 |
| 180 | 3 Aurigæ ι ... ... | 3·5 | ... | 4 | 48 | 8·45 | 57 | 3 | 11·6 | 8 | 0·07 |
| 181 | 99 Tauri ... ... ... | 6·5 | ... | 4 | 49 | 33·67 | 66 | 16 | 3·5 | 6 | 0·89 |
| 182 | 1761 Taylor ... ... | 7·1 | 1 | 4 | 49 | 59·57 | 129 | 18 | 38·7 | 1 | 0·08 |
| 183 | 1780 Taylor ... ... | 7·5 | 1 | 4 | 52 | 15·36 | 144 | 38 | 49·0 | 1 | 0·02 |
| 184 | ... ... ... ... | 9·0 | 1 | 4 | 52 | 18·70 | 129 | 39 | 52·4 | 1 | 0·01 |
| 185 | ... ... ... ... | 9·1 | 1 | 4 | 52 | 40·71 | 150 | 37 | 52·6 | 1 | 0·95 |
| 186 | 1797 Taylor ... ... | 6·8 | 2 | 4 | 54 | 51·40 | 148 | 16 | 57·6 | 2 | 0·04 |
| 187 | 102 Tauri ι ... ... | 5·0 | 1 | 4 | 54 | 58·18 | 68 | 36 | 28·7 | 2 | 0·12 |
| 188 | 1697 Lacaille ... ... | 8·7 | 1 | 4 | 56 | 51·21 | 129 | 7 | 11·5 | 1 | 0·00 |
| 189 | 1811 Taylor ... ... | 6·0 | 1 | 4 | 57 | 2·80 | 129 | 55 | 3·5 | 1 | 0·05 |
| 190 | 1706 Lacaille ... ... | 7·9 | 2 | 4 | 57 | 25·61 | 129 | 16 | 33·1 | 3 | 0·36 |
| 191 | 104 Tauri m ... ... | 5·5 | ... | 4 | 59 | 24·07 | 71 | 32 | 28·9 | 1 | 0·13 |
| 192 | 2 Leporis ε ... ... | 4·0 | ... | 4 | 59 | 42·22 | 112 | 33 | 22·4 | 5 | 0·08 |
| 193 | 103 Tauri ... ... ... | 6·0 | ... | 4 | 59 | 49·42 | 65 | 55 | 7·0 | 4 | 0·89 |
| 194 | 1739 Lacaille ... ... | 8·6 | 2 | 5 | 2 | 51·41 | 146 | 57 | 53·7 | 2 | 0·50 |
| 195 | 13 Aurigæ α (*Capella*) ... | 1·0 | ... | 5 | 6 | 38·75 | 44 | 8 | 40·3 | 2 | 0·07 |
| 196 | 19 Orionis β (*Rigel*) ... | 1·0 | ... | 5 | 8 | 0·14 | 98 | 21 | 42·4 | 7 | 0·20 |
| 197 | ... ... ... ... | 9·1 | 2 | 5 | 8 | 29·42 | 150 | 36 | 20·8 | 2 | 0·06 |
| 198 | ... ... ... ... | 9·4 | 2 | 5 | 10 | 55·61 | 129 | 48 | 31·7 | 2 | 0·94 |
| 199 | ... ... ... ... | 7·9 | 1 | 5 | 13 | 25·19 | 153 | 41 | 44·1 | 2 | 0·06 |
| 200 | ... ... ... ... | 8·0 | 1 | 5 | 14 | 50·32 | 153 | 29 | 22·4 | 1 | 0·12 |
| 201 | ... ... ... ... | 8·4 | 2 | 5 | 17 | 37·79 | 153 | 7 | 20·0 | 2 | 0·07 |
| 202 | 112 Tauri β ... ... | 2·0 | ... | 5 | 17 | 41·80 | 61 | 30 | 41·7 | 3 | 0·37 |
| 203 | 40 R. P. I.. ... ... | 6·2 | ... | 5 | 18 | 45·12 | 4 | 53 | 3·4 | 1 | 0·46 |
| 204 | 1984 Taylor ... ... | 7·6 | 2 | 5 | 18 | 51·34 | 150 | 54 | 50·5 | 2 | 0·07 |
| 205 | ... ... ... ... | 9·0 | 1 | 5 | 19 | 4·78 | 148 | 14 | 18·4 | 1 | 0·09 |
| 206 | ... ... ... ... | 9·3 | 1 | 5 | 19 | 48·08 | 131 | 3 | 54·0 | 1 | 0·05 |
| 207 | ... ... ... ... | 10·2 | 2 | 5 | 21 | 42·40 | 59 | 41 | 0·5 | 2 | 0·06 |
| 208 | ... ... ... ... | 7·4 | 2 | 5 | 22 | 35·25 | 152 | 42 | 6·3 | 2 | 0·09 |
| 209 | λ Doradûs ... ... | 6·1 | 2 | 5 | 24 | 20·55 | 149 | 1 | 43·8 | 2 | 0·49 |
| 210 | 34 Orionis δ Var. 1 ... | 2·0 | ... | 5 | 25 | 3·60 | 90 | 24 | 9·8 | 3 | 0·06 |

176.—178.—Stars used with Mars in 1864 for investigation of the constant of Solar Parallax.
203.—944 Groombridge.
207.—Observed by mistake for the planet Ausonia
210.—δ Orionis Var. 1.—Supposed to vary irregularly between 2·2 and 2·7 magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in R. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 176 | IV 995 W. B. N. ... | + 3·6315 | + 0·0114 | ... | − 6·437 | + 0·506 | .. | ... |
| 177 | ... ... . | + 0·5767 | + 0·0186 | ... | − 6·370 | + 0·083 | ... | ... |
| 178 | IV 1018 W. B. N. ... | + 3·6306 | + 0·0113 | ... | − 6·365 | + 0·505 | ... | ... |
| 179 | 1656 Lacaille ... | + 0·9532 | + 0·0124 | ... | − 6·202 | + 0·135 | ... | ... |
| 180 | 3 Aurigæ ι ... .. | + 3·8962 | + 0·0141 | − 0·003 | − 6·186 | + 0·544 | + 0·02 | 1520 |
| 181 | 99 Tauri ... .. | + 3·6324 | + 0·0109 | + 0·004 | − 6·067 | + 0·508 | + 0·03 | 1527 |
| 182 | 1761 Taylor ... ... | + 2·0280 | + 0·0036 | ... | − 6·031 | + 0·285 | ... | ... |
| 183 | 1780 Taylor .. ... | + 1·2692 | + 0·0084 | ... | − 5·842 | + 0·180 | . | ... |
| 184 | ... ... .. | + 2·0115 | + 0·0038 | ... | − 5·837 | + 0·284 | ... | ... |
| 185 | ... ... .. | + 0·7980 | + 0·0139 | ... | − 5·807 | + 0·113 | ... | ... |
| 186 | 1797 Taylor .. ... | + 0·9956 | + 0·0111 | ... | − 5·624 | + 0·141 | ... | ... |
| 187 | 102 Tauri ι .. | + 3·5749 | + 0·0095 | + 0·004 | − 5·614 | + 0·503 | + 0·06 | 1551 |
| 188 | 1697 Lacaille .. | + 2·0258 | + 0·0036 | ... | − 5·456 | + 0·286 | ... | ... |
| 189 | 1811 Taylor ... .. | + 1·9954 | + 0·0038 | ... | − 5·439 | + 0·282 | ... | 1561 |
| 190 | 1705 Lacaille ... | + 2·0192 | + 0·0037 | ... | − 5·408 | + 0·286 | ... | ... |
| 191 | 104 Tauri m .. . | + 3·5028 | + 0·0083 | + 0·040 | − 5·240 | + 0·495 | − 0·02 | 1568 |
| 192 | 2 Leporis ε ... .. | + 2·5357 | + 0·0033 | + 0·001 | − 5·215 | + 0·359 | + 0·08 | 1575 |
| 193 | 103 Tauri ... ... | + 3·6492 | + 0·0097 | 0·000 | − 5·206 | + 0·516 | − 0·05 | 1572 |
| 194 | 1739 Lacaille .. | + 1·0795 | + 0·0093 | ... | − 4·949 | + 0·155 | ... | ... |
| 195 | 13 Aurigæ α (*Capella*) | + 4·4123 | + 0·0173 | + 0·008 | − 4·627 | + 0·629 | + 0·43 | 1613 |
| 196 | 19 Orionis β (*Rigel*)... | + 2·8805 | + 0·0040 | − 0·001 | − 4·511 | + 0·412 | + 0·02 | 1623 |
| 197 | .. ... .. | + 0·7584 | + 0·0117 | ... | − 4·470 | + 0·110 | ... | ... |
| 198 | ... . .. | + 1·0833 | + 0·0096 | .. | − 4·262 | + 0·285 | ... | ... |
| 199 | .. ... | + 0·4231 | + 0·0144 | ... | − 4·048 | + 0·062 | ... | ... |
| 200 | ... . .. | + 0·4437 | + 0·0138 | ... | − 3·927 | + 0·065 | ... | .. |
| 201 | ... . .. | + 0·4790 | + 0·0128 | ... | − 3·656 | + 0·070 | ... | ... |
| 202 | 112 Tauri β ... ... | + 3·7853 | + 0·0082 | + 0·003 | − 3·651 | + 0·545 | + 0·20 | 1681 |
| 203 | 40 B. P. L. ... ... | + 18·4661 | + 0·6873 | ... | − 3·590 | + 2·652 | ... | 1662 |
| 204 | 1984 Taylor .. .. | + 0·7072 | + 0·0104 | ... | − 3·581 | + 0·103 | ... | 1697 |
| 205 | ... ... .. | + 0·9468 | + 0·0084 | .. | − 3·562 | + 0·138 | ... | ... |
| 206 | ... .. | + 1·9251 | + 0·0035 | ... | − 3·503 | + 0·270 | ... | ... |
| 207 | ... .. ... | + 3·8430 | + 0·0081 | ... | − 3·336 | + 0·554 | ... | ... |
| 208 | .. .. | + 0·5160 | + 0·0113 | ... | − 3·260 | + 0·075 | ... | ... |
| 209 | λ Doradûs ... ... | + 0·8713 | + 0·0061 | ... | − 3·108 | + 0·127 | ... | 1729 |
| 210 | 34 Orionis δ Var. 1 .. | + 3·0627 | + 0·0038 | + 0·001 | − 3·046 | + 0·443 | + 0·04 | 1730 |

181—193.—Proper motions adopted from "*Greenwich Catalogue.*"
192.—Proper motions from Mr. Stone's list, *Vol.* 33, "*Memoirs R. A. S.*"

## *Mean Positions of Stars for 1864 January 1st.*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 211 | 11 Leporis $\alpha$ ... .. | 3·0 | ... | 5 | 26 | 44·02 | 107 | 55 | 20·2 | 2 | 0·53 |
| 212 | 46 Orionis $\epsilon$ ... ... | 2·0 | ... | 5 | 29 | 18·85 | 91 | 17 | 31·1 | 5 | 0·10 |
| 213 | 123 Tauri $\zeta$ ... ... | 3·5 | ... | 5 | 29 | 31·12 | 68 | 56 | 40·1 | 4 | 0·50 |
| 214 | ... ... ... ... | 7·0 | 1 | 5 | 30 | 59·44 | 150 | 13 | 2·9 | 2 | 0·50 |
| 215 | 1949 Lacaille ... ... | 6·2 | 1 | 5 | 32 | 15·80 | 154 | 19 | 4·4 | 1 | 0·06 |
| 216 | ... ... .. ... | 8·6 | 2 | 5 | 32 | 42·45 | 150 | 11 | 35·4 | 3 | 0·37 |
| 217 | $\alpha$ Columbæ ... ... | 2·0 | ... | 5 | 34 | 43·52 | 124 | 8 | 55·3 | 6 | 0·24 |
| 218 | 2113 Taylor ... ... | 8·5 | 1 | 5 | 35 | 8·22 | 130 | 45 | 35·4 | 1 | 0·01 |
| 219 | 1971 Lacaille ... .. | 7·1 | 2 | 5 | 36 | 21·47 | 149 | 11 | 31·8 | 2 | 0·07 |
| 220 | ... ... ... ... | 9·6 | 1 | 5 | 36 | 43·56 | 129 | 57 | 50·9 | 1 | 0·07 |
| 221 | 2184 Taylor ... ... | 9·1 | 2 | 5 | 43 | 54·50 | 150 | 46 | 24·6 | 2 | 0·54 |
| 222 | ... ... ... ... | 9·1 | 2 | 5 | 44 | 9·53 | 152 | 58 | 2·5 | 2 | 0·07 |
| 223 | 54 Orionis $\chi^1$ ... ... | 5·0 | ... | 5 | 46 | 19·70 | 69 | 45 | 11·8 | 2 | 0·05 |
| 224 | 58 Orionis $\alpha$ Var. 1 ... | 1·0 | ... | 5 | 47 | 48·60 | 82 | 37 | 17·7 | 4 | 0·51 |
| 225 | ... ... ... ... | 9·4 | 2 | 5 | 49 | 28·43 | 63 | 50 | 12·9 | 2 | 0·54 |
| 226 | ... ... ... ... | 9·7 | 1 | 5 | 49 | 36·83 | 130 | 1 | 18·6 | 1 | 0·09 |
| 227 | 43 R. P. L. ... ... | 6·6 | ... | 5 | 52 | 0·00 | 3 | 14 | 22·0 | 1 | 0·61 |
| 228 | ... ... ... ... | 9·0 | 1 | 5 | 52 | 41·05 | 129 | 32 | 33·9 | 1 | 0·05 |
| 229 | ... ... ... ... | 8·8 | 1 | 5 | 53 | 1·65 | 130 | 24 | 59·2 | 1 | 0·97 |
| 230 | 64 Orionis $\chi^2$ ... ... | 5·7 | ... | 5 | 55 | 24·37 | 70 | 18 | 40·8 | 2 | 0·13 |
| 231 | 62 Orionis $\chi^4$ ... ... | 5·0 | 1 | 5 | 55 | 50·82 | 69 | 51 | 42·9 | 1 | 0·11 |
| 232 | 2301 Taylor ... ... | 6·5 | 1 | 5 | 58 | 29·56 | 148 | 6 | 17·9 | 1 | 0·09 |
| 233 | 2310 Taylor ... ... | 6·8 | 2 | 5 | 59 | 37·53 | 150 | 29 | 6·8 | 2 | 0·02 |
| 234 | 67 Orionis $\nu$ ... ... | 5·0 | ... | 5 | 59 | 48·47 | 75 | 13 | 8·0 | 6 | 0·25 |
| 235 | ... ... ... ... | 8·8 | 1 | 6 | 2 | 21·04 | 153 | 44 | 39·2 | 1 | 0·12 |
| 236 | ... ... ... ... | 9·5 | 2 | 6 | 8 | 35·03 | 155 | 3 | 30·6 | 2 | 0·54 |
| 237 | ... ... ... ... | 9·5 | 1 | 6 | 8 | 53·37 | 130 | 31 | 33·4 | 1 | 0·09 |
| 238 | ... . ... ... | 9·6 | 1 | 6 | 10 | 6·15 | 153 | 14 | 23·0 | 1 | 0·17 |
| 239 | ... ... ... ... | 7·0 | 2 | 6 | 11 | 2·58 | 140 | 53 | 51·5 | 2 | 0·06 |
| 240 | ... ... .. ... | 8·8 | 1 | 6 | 11 | 43·04 | 152 | 1 | 49·0 | 2 | 0·14 |
| 241 | 13 Geminorum $\mu$ ... ... | 3·3 | ... | 6 | 14 | 43·98 | 67 | 25 | 14·6 | 8 | 0·41 |
| 242 | 2273 Lacaille . ... | 8·0 | 2 | 6 | 17 | 3·66 | 153 | 58 | 24·9 | 2 | 0·17 |
| 243 | 2286 Lacaille ... .. | 7·0 | 2 | 6 | 18 | 48·28 | 153 | 45 | 43·4 | 2 | 0·14 |
| 244 | $\alpha$ Argûs (*Canopus*) ... | 1·0 | ... | 6 | 20 | 55·99 | 142 | 37 | 20·3 | 3 | 0·07 |
| 245 | ... ... ... .. | 8·5 | 2 | 6 | 22 | 6·37 | 128 | 46 | 41·8 | 2 | 0·11 |

224.—$\alpha$ Orionis Var. 2 (*Betelgeux*)—Irregularly variable from 1·0 to 1·5 magnitude.
227.—1004 Groombridge.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion | |
| | | s | s | s | " | " | " | |
| 211 | 11 Leporis α .. ... | + 2·6441 | + 0·0029 | + 0·001 | − 2·901 | + 0·383 | 0·00 | 1741 |
| 212 | 46 Orionis ε ... ... | + 3·0421 | + 0·0035 | − 0·002 | − 2·678 | + 0·441 | + 0·01 | 1765 |
| 213 | 123 Tauri ζ ... . | + 3·5823 | + 0·0055 | 0·000 | − 2·660 | + 0·519 | + 0·06 | 1767 |
| 214 | .. ... | + 0·7546 | + 0·0079 | ... | − 2·532 | + 0·110 | ... | ... |
| 215 | 1949 Lacaille .. | + 0·3121 | + 0·0106 | ... | − 2·421 | + 0·046 | ... | 1790 |
| 216 | ... ... | + 2·7547 | + 0·0076 | ... | − 2·382 | + 0·110 | ... | ... |
| 217 | α Columbæ . .. | + 2·1706 | + 0·0027 | + 0·008 | − 2·208 | + 0·316 | 0·00 | 1802 |
| 218 | 2113 Taylor ... .. | + 1·9264 | + 0·0031 | ... | − 2·172 | + 0·280 | ... | ... |
| 219 | 1971 Lacaille ... | + 0·8418 | + 0·0066 | ... | − 2·065 | + 0·123 | . | ... |
| 220 | ... ... .. | + 1·9573 | + 0·0030 | ... | − 2·033 | + 0·285 | ... | ... |
| 221 | 2184 Taylor ... ... | + 0·6883 | + 0·0059 | ... | − 1·407 | + 0·101 | ... | ... |
| 222 | ... ... .. | + 0·4578 | + 0·0067 | ... | − 1·385 | + 0·068 | ... | ... |
| 223 | 54 Orionis $\chi^1$ .. | + 3·5644 | + 0·0034 | − 0·016 | − 1·196 | + 0·520 | + 0·10 | 1876 |
| 224 | 58 Orionis α Var. 2 ... | + 3·2449 | + 0·0027 | + 0·001 | − 1·066 | + 0·473 | 0·00 | 1883 |
| 225 | . ... .. | + 3·7282 | + 0·0031 | ... | − 0·919 | + 0·543 | . . | ... |
| 226 | .. ... .. | + 1·9504 | + 0·0027 | ... | − 0·900 | + 0·284 | .. | ... |
| 227 | 43 R. P. L. .. .. | + 26·6830 | + 0·2365 | ... | − 0·699 | + 3·889 | ... | 1879 |
| 228 | ... . . .. | + 1·9688 | + 0·0026 | ... | − 0·640 | + 0·287 | ... | ... |
| 229 | ... . | + 1·9341 | + 0·0026 | .. | − 0·610 | + 0·282 | | ... |
| 230 | 64 Orionis $\chi^2$ .. | + 3·5508 | + 0·0022 | + 0·010 | − 0·402 | + 0·518 | + 0·03 | 1934 |
| 231 | 62 Orionis $\chi^4$ .. | + 3·5623 | + 0·0022 | 0·000 | − 0·364 | + 0·519 | + 0·02 | 1929 |
| 232 | 2301 Taylor ... .. | + 0·9235 | + 0·0030 | ... | − 0·131 | + 0·136 | .. | 1954 |
| 233 | 2310 Taylor .. | + 0·7104 | + 0·0030 | .. | − 0·083 | + 0·104 | ... | ... |
| 234 | 67 Orionis ν .. .. | + 3·4248 | + 0·0017 | + 0·001 | − 0·017 | + 0·500 | + 0·02 | 1958 |
| 235 | ... . .. | + 0·3614 | + 0·0025 | ... | + 0·205 | + 0·053 | | ... |
| 236 | .. .. .. | + 0·1923 | + 0·0005 | ... | + 0·750 | + 0·029 | ... | ... |
| 237 | . ... .. | + 1·9300 | + 0·0021 | . | + 0·777 | + 0·281 | | . |
| 238 | ... ... .. | + 0·4232 | + 0·0006 | .. | + 0·883 | + 0·062 | ... | ... |
| 239 | | + 0·7686 | + 0·0010 | .. | + 0·900 | + 0·112 | .. | . . |
| 240 | ... .. | + 0·5576 | + 0·0005 | .. | + 1·025 | + 0·061 | ... | ... |
| 241 | 13 Geminorum μ .. | + 3·6268 | − 0·0008 | + 0·006 | + 1·288 | + 0·527 | + 0·14 | 2017 |
| 242 | 2273 Lacaille .. | + 0·3416 | − 0·0014 | . . | + 1·492 | + 0·049 | . | . |
| 243 | 2286 Lacaille . | + 0·3696 | − 0·0017 | ... | + 1·643 | + 0·053 | . . | 2078 |
| 244 | α Argûs (Canopus) .. | + 1·3292 | + 0·0010 | 0·000 | + 1·830 | + 0·192 | 0·00 | 2096 |
| 245 | ... .. | + 2·0017 | + 0·0018 | ... | + 1·931 | + 0·290 | ... | . |

217 – 223 – 230 – 231 – 234.—Proper Motions adopted from "*Greenwich Catalogue.*"
244.—Proper Motions adopted from "*Stone's Catalogue.*"

## *Mean Positions of Stars for* 1864 *January* 1*st*,

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 246 | 2312 Lacaille ... ... | 7·3 | 1 | 6 | 22 | 8·95 | 153 | 36 | 33·9 | 1 | 0·18 |
| 247 | 2524 Taylor ... ... | 7·2 | 1 | 6 | 23 | 27·42 | 131 | 3 | 3·0 | 1 | 0·09 |
| 248 | 2541 Taylor ... ... | 6·4 | 2 | 6 | 24 | 54·07 | 147 | 54 | 59·3 | 2 | 0·07 |
| 249 | ... ... ... ... | 9·0 | 2 | 6 | 27 | 30·56 | 152 | 27 | 51·6 | 2 | 0·13 |
| 250 | ... ... ... ... | 9·0 | 2 | 6 | 27 | 45·52 | 131 | 5 | 17·2 | 2 | 0·10 |
| 251 | ... ... ... ... | 9·0 | 2 | 6 | 28 | 24·30 | 130 | 55 | 47·3 | 2 | 0·11 |
| 252 | ... ... ... ... | 8·6 | 2 | 6 | 28 | 39·22 | 151 | 10 | 1·3 | 2 | 0·17 |
| 253 | 24 Geminorum γ ... ... | 2·5 | ... | 6 | 29 | 51·26 | 73 | 29 | 18·1 | 9 | 0·31 |
| 254 | ... ... ... ... | 8·8 | 1 | 6 | 33 | 33·10 | 152 | 27 | 3·8 | 1 | 0·19 |
| 255 | ... ... ... ... | 7·7 | 1 | 6 | 34 | 30·70 | 130 | 27 | 55·6 | 1 | 0·09 |
| 256 | 51 Cephei (*Hev.*) ... ... | 5·3 | ... | 6 | 35 | 39·16 | 2 | 45 | 19·4 | 15 | 0·26 |
| 257 | 2652 Taylor ... ... | 7·0 | 2 | 6 | 36 | 32·83 | 151 | 24 | 49·6 | 2 | 0·11 |
| 258 | ... ... ... ... | 9·3 | 1 | 6 | 37 | 53·05 | 153 | 20 | 37·4 | 1 | 0·18 |
| 259 | 2667 Taylor ... ... | 8·1 | 1 | 6 | 38 | 22·76 | 148 | 59 | 39·8 | 1 | 0·18 |
| 260 | ... ... ... ... | 8·6 | 1 | 6 | 39 | 7·42 | 131 | 3 | 25·0 | 1 | 0·17 |
| 261 | 9 Canis Majoris α (*Sirius*) | 1·0 | ... | 6 | 39 | 9·21 | 106 | 31 | 56·6 | 3 | 0·09 |
| 262 | ... ... ... ... | 8·4 | 3 | 6 | 40 | 29·47 | 131 | 2 | 27·1 | 3 | 0·17 |
| 263 | 2724 Taylor ... .. | 8·6 | 2 | 6 | 44 | 53·34 | 144 | 36 | 1·6 | 2 | 0·20 |
| 264 | ... ... ... ... | 9·6 | 2 | 6 | 46 | 32·81 | 130 | 10 | 6·9 | 2 | 0·15 |
| 265 | α Pictoris ... ... ... | 5·0 | 2 | 6 | 46 | 47·58 | 151 | 47 | 46·1 | 2 | 0·11 |
| 266 | 2500 Lacaille .. ... | 7·9 | 2 | 6 | 47 | 0·05 | 130 | 23 | 20·6 | 2 | 0·12 |
| 267 | 2532 Lacaille ... ... | 6·8 | 3 | 6 | 48 | 12·87 | 150 | 5 | 32·5 | 3 | 0·18 |
| 268 | ... ... ... ... | 9·3 | 3 | 6 | 48 | 50·56 | 130 | 10 | 17·0 | 2 | 0·15 |
| 269 | ... ... ... ... | 9·0 | 1 | 6 | 49 | 43·02 | 129 | 8 | 19·7 | 1 | 0·09 |
| 270 | ... ... .. ... | 10·7 | 2 | 6 | 50 | 25·88 | 75 | 17 | 25·1 | 2 | 0·08 |
| 271 | 21 Canis Majoris ε ... | 1·7 | ... | 6 | 53 | 16·89 | 118 | 47 | 21·4 | 7 | 0·11 |
| 272 | ... ... ... ... | 9·0 | 3 | 6 | 53 | 47·80 | 129 | 47 | 31·5 | 3 | 0·15 |
| 273 | 3 Geminorum (1st) ... | 6·2 | 1 | 6 | 56 | 1·73 | 69 | 12 | 28·9 | 1 | 0·09 |
| 274 | 43 Geminorum ζ Var. 1 ... | 4·3 | ... | 6 | 56 | 2·48 | 69 | 14 | 1·9 | 5 | 0·09 |
| 275 | 2825 Taylor ... ... | 8·9 | 2 | 6 | 56 | 52·03 | 150 | 54 | 38·0 | 2 | 0·13 |
| 276 | 23 Canis Majoris γ ... | 4·5 | ... | 6 | 57 | 36·31 | 105 | 26 | 5·5 | 4 | 0·12 |
| 277 | ... ... ... .. | 9·1 | 2 | 6 | 58 | 23·20 | 66 | 56 | 5·7 | 2 | 0·14 |
| 278 | ... ... .. | 9·0 | 1 | 6 | 59 | 11·80 | 66 | 59 | 54·9 | 1 | 0·18 |
| 279 | ... .. ... | 9·3 | 1 | 6 | 59 | 48·03 | 129 | 43 | 4·3 | 1 | 0·07 |
| 280 | 2851 Taylor .. .. | 7·8 | 2 | 7 | 0 | 49·81 | 145 | 44 | 48·1 | 2 | 0·19 |

270.—Observed by mistake for Pomona.
274.—ζ Geminorum Var. 1.—Period 10·16 days.—Range, 3·7 to 4·5 magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 246 | 2312 Lacaille .. | + 0·3902 | − 0·0025 | . | + 1·035 | + 0·056 | ... | ... |
| 247 | 2524 Taylor . .. | + 1·9139 | + 0·0018 | .. | + 2·049 | + 0·277 | .. | ... |
| 248 | 2541 Taylor ... . | + 0·9520 | − 0·0006 | ... | + 2·176 | + 0·137 | .. | 2124 |
| 249 | ... | + 0·5260 | − 0·0030 | ... | + 2·401 | + 0·075 | ... | ... |
| 250 | ... .. . | + 1·9148 | + 0·0016 | .. | + 2·424 | + 0·276 | .. | ... |
| 251 | .. . | + 1·9216 | + 0·0016 | . | + 2·479 | + 0·277 | .. | ... |
| 252 | | + 0·6624 | − 0·0025 | .. | + 2·501 | + 0·095 | ... | . |
| 253 | 24 Geminorum γ .. | + 3·4650 | − 0·0015 | + 0·001 | + 2·605 | + 0·500 | + 0·04 | 2163 |
| 254 | ... ... ... | + 0·5364 | − 0·0043 | ... | + 2·925 | + 0·076 | ... | ... |
| 255 | ... ... .. | + 1·9445 | + 0·0015 | ... | + 3·008 | + 0·279 | ... | ... |
| 256 | 51 Cephei (*Hev*) .. | + 30·5188 | − 1·8259 | − 0·027 | + 3·107 | + 4·396 | + 0·08 | 2157 |
| 257 | 2652 Taylor ... .. | + 0·6495 | − 0·0042 | ... | + 3·185 | + 0·092 | ... | 2208 |
| 258 | . ... .. | + 0·4451 | − 0·0061 | ... | + 3·300 | + 0·063 | ... | ... |
| 259 | 2667 Taylor ... .. | + 0·8785 | − 0·0029 | ... | + 3·343 | + 0·125 | ... | ... |
| 260 | ... ... ... | + 1·9244 | + 0·0014 | ... | + 3·407 | + 0·276 | ... | ... |
| 261 | 9 Canis Majoris α .. | + 2·6808 | + 0·0010 | − 0·035 | + 3·409 | + 0·384 | + 1·24 | 2213 |
| 262 | ... ... .. | + 1·9263 | + 0·0013 | ... | + 3·524 | + 0·275 | ... | ... |
| 263 | 2724 Taylor . .. | + 1·2266 | − 0·0014 | ... | + 3·903 | + 0·173 | ... | .. |
| 264 | ... . | + 1·9667 | + 0·0013 | ... | + 4·015 | + 0·279 | ... | ... |
| 265 | α Pictoris ... .. | + 0·6308 | − 0·0063 | − 0·010 | + 4·066 | + 0·088 | − 0·18 | 2260 |
| 266 | 2509 Lacaille .. | + 1·9585 | + 0·0012 | ... | + 4·084 | + 0·278 | ... | ... |
| 267 | 2532 Lacaille ... | + 0·7920 | − 0·0050 | ... | + 4·188 | + 0·112 | ... | ... |
| 268 | ... ... ... | + 1·9689 | + 0·0012 | .. | + 4·241 | + 0·279 | ... | . |
| 269 | ... ... ... | + 2·0095 | + 0·0013 | ... | + 4·316 | + 0·284 | .. | ... |
| 270 | ... ... .. | + 3·4146 | − 0·0031 | ... | + 4·378 | + 0·484 | .. | ... |
| 271 | 21 Canis Majoris ε . | + 2·3571 | + 0·0013 | 0·000 | + 4·620 | + 0·332 | + 0·02 | 2293 |
| 272 | ... ... .. | + 1·9800 | + 0·0012 | .. | + 4·664 | + 0·280 | ... | .. |
| 273 | 3 Geminorum (1st) .. | + 3·5647 | − 0·0060 | ... | + 4·853 | + 0·503 | ... | ... |
| 274 | 43 Geminorum ζ Var 1 | + 3·5640 | − 0·0050 | − 0·001 | + 4·855 | + 0·508 | + 0·01 | 2305 |
| 275 | 2825 Taylor ... .. | + 0·7426 | − 0·0090 | .. | + 4·925 | + 0·103 | ... | ... |
| 276 | 23 Canis Majoris γ .. | + 2·7144 | + 0·0005 | + 0·002 | + 4·988 | + 0·381 | + 0·01 | 2319 |
| 277 | ... ... .. | + 3·6230 | − 0·0058 | ... | + 5·064 | + 0·509 | ... | ... |
| 278 | .. ... ... | + 3·6200 | − 0·0059 | ... | + 5·123 | + 0·509 | ... | ... |
| 279 | ... ... ... | + 1·9920 | + 0·0011 | .. | + 5·176 | + 0·280 | ... | .. |
| 280 | 2851 Taylor ... .. | + 1·1774 | − 0·0033 | ... | + 5·261 | + 0·164 | ... | ... |

265.—Proper Motions adopted from "*Stone's Catalogue.*"

*Mean Positions of Stars for 1864 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 281 | R Canis Minoris Var. 1 ... | 9·2 | 1 | 7 | 1 | 13·77 | 79 | 45 | 50·6 | 1 | 0·08 |
| 282 | 2882 Taylor ... ... | 8·9 | 4 | 7 | 3 | 26·90 | 151 | 1 | 2·7 | 4 | 0·13 |
| 283 | ... ... ... ... | 9·3 | 1 | 7 | 4 | 58·07 | 130 | 42 | 33·2 | 1 | 0·07 |
| 284 | 2899 Taylor ... ... | 8·9 | 1 | 7 | 5 | 47·76 | 130 | 8 | 49·2 | 1 | 0·09 |
| 285 | ... ... ... ... | 9·5 | 1 | 7 | 5 | 51·92 | 129 | 23 | 13·1 | 1 | 0·08 |
| 286 | 2678 Lacaille ... ... | 8·5 | 1 | 7 | 6 | 10·50 | 148 | 9 | 13·4 | 1 | 0·18 |
| 287 | ... ... ... ... | 8·2 | 1 | 7 | 6 | 38·61 | 129 | 2 | 41·9 | 1 | 0·07 |
| 288 | ... ... ... .. | 9·3 | 2 | 7 | 7 | 59·43 | 148 | 46 | 1·9 | 2 | 0·07 |
| 289 | ... ... ... ... | 8·9 | 2 | 7 | 8 | 9·13 | 152 | 5 | 1·8 | 2 | 0·12 |
| 290 | 2940 Taylor ... .. | 9·0 | 1 | 7 | 9 | 27·96 | 129 | 57 | 41·1 | 1 | 0·08 |
| 291 | 54 Geminorum λ ... ... | 4·3 | ... | 7 | 10 | 16·45 | 73 | 13 | 3·6 | 3 | 0·16 |
| 292 | ... ... ... ... | 9·8 | 1 | 7 | 10 | 16·60 | 131 | 52 | 8·3 | 1 | 0·07 |
| 293 | 55 Geminorum δ ... ... | 3·5 | ... | 7 | 11 | 59·93 | 67 | 46 | 15·7 | 10 | 0·12 |
| 294 | ... ... ... ... | 9·2 | 1 | 7 | 13 | 1·19 | 129 | 15 | 59·3 | 1 | 0·07 |
| 295 | ... ... ... ... | 8·7 | 1 | 7 | 14 | 30·70 | 138 | 49 | 35·4 | 1 | 0·07 |
| 296 | 3005 Taylor ... ... | 8·7 | 2 | 7 | 15 | 28·80 | 149 | 0 | 54·3 | 2 | 0·19 |
| 297 | 2805 Lacaille . ... | 8·3 | 1 | 7 | 17 | 21·21 | 153 | 8 | 4·0 | 1 | 0·18 |
| 298 | ... ... ... ... | 9·2 | 1 | 7 | 18 | 4·08 | 129 | 42 | 31·1 | 1 | 0·09 |
| 299 | 3043 Taylor ... ... | 7·0 | 1 | 7 | 19 | 13·59 | 129 | 16 | 24·8 | 1 | 0·12 |
| 300 | ... ... ... . | 9·0 | ... | 7 | 19 | 35·74 | 123 | 7 | 59·6 | 1 | 0·08 |
| 301 | 63 Geminorum ... .. | 5·5 | 1 | 7 | 19 | 39·51 | 68 | 16 | 48·8 | 2 | 0·95 |
| 302 | 3054 Taylor ... ... | 7·4 | 2 | 7 | 20 | 2·06 | 151 | 41 | 28·6 | 2 | 0·14 |
| 303 | ... ... .. | 7·7 | 1 | 7 | 21 | 34·23 | 131 | 50 | 25·7 | 1 | 0·09 |
| 304 | 6 Canis Minoris ... ... | 5·5 | ... | 7 | 22 | 13·39 | 77 | 42 | 55·1 | 1 | 0·13 |
| 305 | ... ... ... .. | 9·8 | 1 | 7 | 23 | 24·08 | 51 | 57 | 26·3 | 1 | 0·07 |
| 306 | .. ... ... .. | 9·0 | 1 | 7 | 24 | 58·41 | 123 | 8 | 19·2 | 1 | 0·17 |
| 307 | S Canis Minoris Var. 2 .. | 8·3 | 1 | 7 | 25 | 20·43 | 81 | 23 | 41·7 | 1 | 0·08 |
| 308 | 68 Geminorum ... .. | 5·4 | .. | 7 | 25 | 50·63 | 73 | 53 | 3·7 | 4 | 0·36 |
| 309 | 66 Geminorum α[1] (*Castor*) | 1·7 | ... | 7 | 25 | 55·06 | 57 | 49 | 1·8 | 3 | 0·14 |
| 310 | ... .. ... | 8·9 | 1 | 7 | 26 | 5·18 | 142 | 5 | 53·7 | 1 | 0·04 |
| 311 | ... . ... ... | 9·0 | 3 | 7 | 26 | 48·29 | 123 | 7 | 22·5 | 3 | 0·18 |
| 312 | .. ... .. . | 9·3 | 1 | 7 | 27 | 13·25 | 153 | 10 | 42·2 | 1 | 0·18 |
| 313 | 3126 Taylor .. . | 7·1 | 1 | 7 | 29 | 34·20 | 143 | 15 | 44·3 | 1 | 0·09 |
| 314 | 10 Can. Min. α (*Procyon*).. | 1·0 | | 7 | 32 | 10·86 | 84 | 25 | 46·3 | 7 | 0·15 |
| 315 | 2803 Lacaille ... . | 7·5 | 2 | 7 | 32 | 43·11 | 121 | 49 | 27·6 | 2 | 0·15 |

281.—R Canis Minoris Var. 1.—Period 335 days.—Range, 7·5 to 11th magnitude.
307.—S Canis Minoris Var. 2.—Period 382 days.—Range, 8·5 magnitude to invisibility

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | ° | s | s | s | " | " | " | |
| 281 | R Canis Minoris Var. 1 | + 3·3049 | − 0·0031 | ... | + 5·294 | + 0·463 | ... | ... |
| 282 | 2882 Taylor ... ... | + 0·7503 | − 0·0090 | ... | + 5·481 | + 0·103 | ... | .. |
| 283 | ... ... ... | + 1·9676 | + 0·0009 | ... | + 5·609 | + 0·274 | ... | ... |
| 284 | 2899 Taylor ... ... | + 1·9905 | + 0·0010 | ... | + 5·678 | + 0·277 | ... | ... |
| 285 | ... ... ... | + 2·0193 | + 0·0011 | ... | + 5·685 | + 0·280 | ... | ... |
| 286 | 2678 Lacaille ... | + 1·0087 | − 0·0055 | ... | + 5·711 | + 0·139 | ... | ... |
| 287 | ... ... ... | + 2·0332 | + 0·0011 | ... | + 5·750 | + 0·282 | ... | ... |
| 288 | ... ... ... | + 0·9634 | + 0·0059 | ... | + 5·863 | + 0·132 | ... | ... |
| 289 | ... ... ... | + 0·6594 | − 0·0102 | ... | + 5·876 | + 0·089 | ... | ... |
| 290 | 2940 Taylor ... ... | + 2·0028 | + 0·0010 | ... | + 5·986 | + 0·276 | ... | ... |
| 291 | 54 Geminorum λ ... | + 3·4565 | − 0·0055 | − 0·002 | + 6·054 | + 0·478 | + 0·04 | 2398 |
| 292 | ... ... ... | + 1·9296 | + 0·0007 | ... | + 6·054 | + 0·265 | ... | ... |
| 293 | 55 Geminorum δ ... | + 3·5917 | − 0·0072 | 0·000 | + 6·198 | + 0·495 | + 0·03 | 2410 |
| 294 | ... ... ... | + 2·0341 | + 0·0009 | ... | + 6·282 | + 0·279 | ... | ... |
| 295 | ... ... ... | + 1·6234 | − 0·0008 | ... | + 6·406 | + 0·221 | ... | ... |
| 296 | 3005 Taylor ... ... | + 0·9653 | − 0·0071 | ... | + 6·487 | + 0·130 | ... | ... |
| 297 | 2505 Lacaille ... | + 0·5816 | − 0·0132 | ... | + 6·641 | + 0·077 | ... | ... |
| 298 | ... ... ... | + 2·0255 | + 0·0010 | ... | + 6·700 | + 0·275 | ... | ... |
| 299 | 3043 Taylor ... ... | + 2·0435 | + 0·0009 | ... | + 6·795 | + 0·277 | ... | ... |
| 300 | ... ... ... | + 2·2515 | + 0·0013 | ... | + 6·826 | + 0·306 | ... | ... |
| 301 | 63 Geminorum ... | + 3·5728 | − 0·0078 | − 0·004 | + 6·832 | + 0·487 | + 0·10 | 2460 |
| 302 | 3054 Taylor ... ... | + 0·7398 | − 0·0111 | ... | + 6·864 | + 0·098 | ... | ... |
| 303 | ... ... ... | + 1·9500 | + 0·0006 | ... | + 6·988 | + 0·264 | ... | .. |
| 304 | 6 Canis Minoris ... | + 3·3446 | − 0·0052 | + 0·004 | + 7·012 | + 0·453 | 0·00 | 2473 |
| 305 | ... ... ... | + 4·0499 | − 0·0165 | ... | + 7·139 | + 0·519 | ... | ... |
| 306 | ... ... ... | + 2·2595 | + 0·0011 | ... | + 7·267 | + 0·304 | ... | ... |
| 307 | S Canis Minoris Var. 2 | + 3·2605 | − 0·0044 | ... | + 7·298 | + 0·440 | ... | .. |
| 308 | 68 Geminorum ... | + 3·4316 | − 0·0066 | − 0·004 | + 7·338 | + 0·463 | 0·00 | 2486 |
| 309 | 66 Gem. α² (*Castor*) ... | + 3·8550 | − 0·0133 | − 0·013 | + 7·344 | + 0·519 | + 0·06 | 2485 |
| 310 | ... ... ... | + 1·4744 | − 0·0024 | ... | + 7·357 | + 0·197 | ... | ... |
| 311 | ... ... ... | + 2·2616 | + 0·0011 | ... | + 7·416 | + 0·303 | ... | ... |
| 312 | ... ... ... | + 0·6169 | − 0·0146 | ... | + 7·449 | + 0·081 | ... | ... |
| 313 | 3126 Taylor ... ... | + 1·4160 | − 0·0032 | ... | + 7·640 | + 0·188 | ... | 2507 |
| 314 | 10 Can. Min. (*Procyon*) | + 3·1920 | − 0·0041 | − 0·048 | + 7·850 | + 0·425 | + 1·08 | 2522 |
| 315 | 2893 Lacaille ... | + 2·3023 | + 0·0012 | ... | + 7·894 | + 0·307 | ... | ... |

291.—304.—Proper Motions adopted from "*Greenwich Catalogues.*"

*Mean Positions of Stars for 1864 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | . | |
| 316 | 2910 Lacaille ... ... | 7·7 | 1 | 7 | 33 | 17·38 | 143 | 52 | 51·3 | 1 | 0·14 |
| 317 | ... ... ... ... | 9·8 | 1 | 7 | 35 | 10·00 | 66 | 15 | 55·0 | 1 | 0·09 |
| 318 | ... ... ... ... | 8·9 | 1 | 7 | 35 | 19·80 | 152 | 59 | 34·8 | 1 | 0·18 |
| 319 | ... ... ... ... | 8·6 | 1 | 7 | 35 | 20·22 | 144 | 19 | 41·9 | 1 | 0·04 |
| 320 | 78 Geminorum β (*Pollux*).. | 1·3 | ... | 7 | 36 | 59·42 | 61 | 38 | 56·1 | 6 | 0·14 |
| 321 | 2971 Lacaille ... ... | 7·6 | 2 | 7 | 40 | 18·27 | 143 | 54 | 58·3 | 2 | 0·15 |
| 322 | T Geminorum Var. 4 ... | 10·4 | 1 | 7 | 41 | 8·37 | 65 | 55 | 48·7 | 1 | 0·09 |
| 323 | ... ... ... ... | 8·5 | 1 | 7 | 41 | 18·45 | 151 | 34 | 30·1 | 1 | 0·18 |
| 324 | ... ... ... ... | 8·7 | 1 | 7 | 41 | 32·28 | 144 | 18 | 41·3 | 1 | 0·15 |
| 325 | 3013 Lacaille ... ... | 7·0 | 2 | 7 | 43 | 29·04 | 142 | 0 | 43·2 | 2 | 0·14 |
| 326 | 49 R. P. L. ... ... | 6·5 | ... | 7 | 43 | 55·24 | 5 | 33 | 41·3 | 3 | 0·34 |
| 327 | 3034 Lacaille ... ... | 8·8 | 1 | 7 | 44 | 4·63 | 153 | 51 | 39·1 | 1 | 0·18 |
| 328 | 3031 Lacaille ... ... | 7·7 | 3 | 7 | 45 | 5·13 | 144 | 22 | 27·0 | 3 | 0·12 |
| 329 | 3290 Taylor ... ... | 8·3 | 1 | 7 | 46 | 18·09 | 144 | 27 | 57·2 | 1 | 0·07 |
| 330 | 1791 Brisbane ... ... | 8·3 | 1 | 7 | 46 | 18·63 | 144 | 24 | 39·2 | 1 | 0·07 |
| 331 | ... ... ... ... | 8·5 | 2 | 7 | 46 | 29·45 | 144 | 22 | 26·6 | 2 | 0·17 |
| 332 | ... ... ... ... | 9·1 | 2 | 7 | 48 | 28·61 | 67 | 46 | 6·7 | 2 | 0·15 |
| 333 | 3310 Taylor ... ... | 7·0 | 1 | 7 | 48 | 32·66 | 149 | 17 | 52·9 | 1 | 0·20 |
| 334 | ... ... ... ... | 9·5 | 1 | 7 | 48 | 59·01 | 130 | 26 | 3·1 | 1 | 0·10 |
| 335 | ... ... ... ... | 6·9 | 1 | 7 | 49 | 29·50 | 152 | 34 | 55·6 | 1 | 0·15 |
| 336 | ... ... ... ... | 8·8 | 1 | 7 | 50 | 4·76 | 129 | 38 | 25·7 | 1 | 0·19 |
| 337 | 3339 Taylor ... ... | 8·6 | 1 | 7 | 51 | 50·10 | 144 | 16 | 56·4 | 1 | 0·12 |
| 338 | ... ... ... ... | 8·7 | 1 | 7 | 52 | 54·08 | 144 | 41 | 42·0 | 1 | 0·16 |
| 339 | 5 Cancri ... ... ... | 6·0 | 2 | 7 | 53 | 45·22 | 73 | 10 | 22·6 | 2 | 0·06 |
| 340 | 6 Cancri ... ... ... | 5·5 | ... | 7 | 55 | 9·70 | 61 | 49 | 40·3 | 4 | 0·13 |
| 341 | 3373 Taylor ... ... | 7·9 | 2 | 7 | 55 | 13·81 | 144 | 11 | 52·5 | 2 | 0·16 |
| 342 | ... ... ... ... | 8·0 | 1 | 7 | 55 | 20·11 | 128 | 30 | 12·2 | 1 | 0·21 |
| 343 | 1855 Brisbane ... ... | 6·9 | 2 | 7 | 55 | 28·07 | 152 | 55 | 47·2 | 2 | 0·15 |
| 344 | 3380 Taylor ... ... | 7·8 | 3 | 7 | 55 | 47·96 | 144 | 10 | 33·8 | 3 | 0·14 |
| 345 | ... ... ... ... | 9·8 | 1 | 7 | 56 | 31·61 | 129 | 21 | 20·2 | 1 | 0·09 |
| 346 | 3154 Lacaille ... ... | 5·6 | 3 | 7 | 58 | 36·73 | 153 | 11 | 28·7 | 3 | 0·14 |
| 347 | 12 Cancri ... ... ... | 6·0 | 2 | 8 | 1 | 0·48 | 75 | 57 | 58·6 | 2 | 0·06 |
| 348 | 3174 Lacaille ... ... | 7·2 | 2 | 8 | 1 | 25·69 | 155 | 37 | 56·0 | 2 | 0·22 |
| 349 | 15 Argûs ... ... ... | 3·0 | ... | 8 | 1 | 45·15 | 113 | 54 | 51·6 | 9 | 0·14 |
| 350 | ... ... ... ... | 9·1 | 1 | 8 | 2 | 2·82 | 113 | 46 | 47·6 | 1 | 0·12 |

322.—T Geminorum Var. 4.—Period 228 days.—Range, 8·5 magnitude to invisibility.
326.—1350 Groombridge.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 316 | 2910 Lacaille ... | + 1·3896 | − 0·0037 | ... | + 7·940 | + 0·183 | ... | ... |
| 317 | ... ... ... | + 3·6100 | − 0·0131 | ... | + 8·020 | + 0·479 | ... | ... |
| 318 | ... ... .. | + 0·6726 | − 0·0152 | ... | + 8·103 | + 0·087 | ... | ... |
| 319 | ... ... ... | + 1·3648 | − 0·0041 | ... | + 8·116 | + 0·179 | ... | ... |
| 320 | 78 Gem. β (*Pollux*) ... | + 3·7298 | − 0·0128 | − 0·019 | + 8·236 | + 0·491 | + 0·06 | 2555 |
| 321 | 2971 Lacaille ... | + 1·4105 | − 0·0038 | ... | + 8·500 | + 0·182 | ... | ... |
| 322 | T Geminorum Var. 4. | + 3·6121 | − 0·0110 | ... | + 8·565 | + 0·472 | ... | ... |
| 323 | ... ... .. | + 0·8393 | − 0·0128 | ... | + 8·579 | + 0·107 | ... | ... |
| 324 | ... ... .. | + 1·3903 | − 0·0041 | ... | + 8·598 | + 0·179 | ... | ... |
| 325 | 3013 Lacaille ... | + 1·5317 | − 0·0026 | ... | + 8·751 | + 0·197 | ... | ... |
| 326 | 49 R. P. L. ... .. | + 15·4159 | − 1·2230 | ... | + 8·785 | + 2·017 | ... | 2586 |
| 327 | 3034 Lacaille ... | + 0·6237 | − 0·0180 | ... | + 8·797 | + 0·078 | ... | ... |
| 328 | 3031 Lacaille ... | + 1·3920 | − 0·0042 | ... | + 8·877 | + 0·179 | ... | ... |
| 329 | 3290 Taylor ... | + 1·3977 | − 0·0043 | ... | + 8·972 | + 0·178 | ... | ... |
| 330 | 1791 Brisbane ... | + 1·4012 | − 0·0043 | ... | + 8·973 | + 0·179 | ... | ... |
| 331 | ... ... ... | + 1·4041 | − 0·0042 | ... | + 8·987 | + 0·179 | ... | ... |
| 332 | ... ... ... | + 3·5585 | − 0·0109 | ... | + 9·141 | + 0·458 | ... | ... |
| 333 | 3310 Taylor ... ... | + 1·0684 | − 0·0095 | ... | + 9·148 | + 0·135 | ... | ... |
| 334 | ... ... .. | + 2·0593 | + 0·0010 | ... | + 9·181 | + 0·263 | ... | ... |
| 335 | ... ... .. | + 0·7832 | − 0·0153 | ... | + 9·221 | + 0·098 | ... | ... |
| 336 | ... ... ... | + 2·0897 | + 0·0011 | ... | + 9·266 | + 0·266 | ... | .. |
| 337 | 3339 Taylor ... ... | + 1·4297 | − 0·0041 | ... | + 9·403 | + 0·180 | ... | ... |
| 338 | ... ... ... | + 1·4096 | − 0·0044 | ... | + 9·485 | + 0·177 | ... | ... |
| 339 | 5 Cancri ... ... | + 3·4277 | − 0·0020 | − 0·001 | + 9·551 | + 0·436 | 0·00 | 2664 |
| 340 | 6 Cancri ... ... | + 3·6995 | − 0·0148 | − 0·005 | + 9·659 | + 0·468 | + 0·07 | 2672 |
| 341 | 3373 Taylor ... ... | + 1·4478 | − 0·0041 | ... | + 9·664 | + 0·181 | ... | ... |
| 342 | ... ... ... | + 2·1404 | + 0·0013 | ... | + 9·673 | + 0·270 | ... | ... |
| 343 | 1855 Brisbane ... | + 0·7811 | − 0·0165 | ... | + 9·683 | + 0·096 | ... | 2680 |
| 344 | 3380 Taylor ... .. | + 1·4513 | − 0·0040 | ... | + 9·704 | + 0·181 | ... | ... |
| 345 | ... ... ... | + 2·1143 | + 0·0013 | ... | + 9·703 | + 0·265 | ... | ... |
| 346 | 3154 Lacaille ... | + 0·7728 | − 0·0173 | ... | + 9·922 | + 0·094 | ... | 2713 |
| 347 | 12 Cancri .. ... | + 3·3607 | − 0·0083 | − 0·001 | + 10·110 | + 0·419 | + 0·02 | 2720 |
| 348 | 3174 Lacaille .. | + 0·5249 | − 0·0246 | ... | + 10·135 | + 0·062 | ... | ... |
| 349 | 15 Argûs ... ... | + 2·5608 | + 0·0000 | − 0·007 | + 10·160 | + 0·318 | − 0·06 | 2723 |
| 350 | ... ... .. | + 2·5645 | + 0·0000 | ... | + 10·182 | + 0·318 | ... | ... |

339.—347.—Proper motions adopted from "*Greenwich Catalogues*."

*Mean Positions of Stars for 1864 January 1st.*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 351 | 3200 Lacaille ... ... | 6·9 | 2 | 8 | 4 | 47·63 | 153 | 7 | 24·3 | 2 | 0·18 |
| 352 | ... ... ... ... | 8·6 | 1 | 8 | 5 | 19·41 | 130 | 45 | 22·9 | 1 | 0·09 |
| 353 | ... ... ... ... | 10·1 | 2 | 8 | 5 | 20·10 | 77 | 37 | 34·8 | 2 | 0·23 |
| 354 | ... ... ... ... | 9·0 | 3 | 8 | 5 | 26·43 | 77 | 24 | 57·4 | 3 | 0·23 |
| 355 | ... ... ... ... | 9·7 | 3 | 8 | 8 | 19·71 | 77 | 26 | 31·1 | 3 | 0·24 |
| 356 | R Cancri Var. 1 ... ... | 8·0 | 2 | 8 | 9 | 3·87 | 77 | 51 | 33·0 | 2 | 0·19 |
| 357 | ... ... ... ... | 9·2 | 3 | 8 | 9 | 7·45 | 77 | 27 | 27·9 | 3 | 0·24 |
| 358 | ... ... ... ... | 9·7 | 1 | 8 | 9 | 55·34 | 74 | 16 | 13·7 | 1 | 0·09 |
| 359 | ... ... ... ... | 9·9 | 3 | 8 | 10 | 28·84 | 77 | 37 | 47·6 | 3 | 0·22 |
| 360 | 16224 Lalande ... ... | 8·5 | 1 | 8 | 10 | 33·55 | 73 | 54 | 11·0 | 1 | 0·07 |
| 361 | ... ... ... ... | 8·8 | 1 | 8 | 12 | 17·13 | 128 | 43 | 38·1 | 1 | 0·10 |
| 362 | ... ... ... ... | 8·9 | 1 | 8 | 12 | 45·20 | 128 | 40 | 53·7 | 1 | 0·10 |
| 363 | ... ... ... ... | 9·7 | 1 | 8 | 12 | 57·45 | 130 | 45 | 32·2 | 1 | 0·13 |
| 364 | ... ... ... ... | 9·2 | 2 | 8 | 13 | 20·63 | 131 | 41 | 13·8 | 2 | 0·15 |
| 365 | ... ... ... ... | 9·6 | 1 | 8 | 13 | 42·39 | 133 | 17 | 18·1 | 1 | 0·12 |
| 366 | ... ... ... ... | 9·7 | 1 | 8 | 14 | 30·56 | 154 | 5 | 5·7 | 1 | 0·18 |
| 367 | ... ... ... ... | 9·3 | 1 | 8 | 16 | 25·78 | 77 | 31 | 46·7 | 1 | 0·20 |
| 368 | ... ... ... ... | 8·6 | 1 | 8 | 17 | 22·71 | 77 | 49 | 9·1 | 1 | 0·19 |
| 369 | ... ... ... ... | 9·0 | 1 | 8 | 17 | 23·61 | 141 | 15 | 52·4 | 1 | 0·12 |
| 370 | VIII 459 W. B. N. ... | 8·7 | 3 | 8 | 20 | 17·12 | 74 | 27 | 21·4 | 3 | 0·13 |
| 371 | 29 Cancri ... ... ... | 6·0 | ... | 8 | 21 | 2·13 | 75 | 20 | 30·1 | 1 | 0·13 |
| 372 | ... ... ... ... | 9·0 | 3 | 8 | 23 | 7·81 | 73 | 25 | 24·7 | 3 | 0·19 |
| 373 | 3620 Taylor ... ... | 8·0 | 1 | 8 | 23 | 10·60 | 130 | 47 | 47·6 | 1 | 0·12 |
| 374 | ... ... ... ... | 8·6 | 1 | 8 | 23 | 32·12 | 128 | 38 | 35·7 | 1 | 0·25 |
| 375 | 31 Cancri θ ... ... | 5·3 | ... | 8 | 23 | 50·24 | 71 | 26 | 55·9 | 1 | 0·06 |
| 376 | ... ... ... ... | 9·5 | 4 | 8 | 24 | 44·63 | 73 | 45 | 40·7 | 4 | 0·17 |
| 377 | 33 Cancri η ... ... | 5·7 | ... | 8 | 24 | 50·41 | 69 | 5 | 59·4 | 9 | 0·16 |
| 378 | 3651 Taylor ... ... | 7·8 | 1 | 8 | 25 | 39·62 | 130 | 3 | 20·0 | 1 | 0·10 |
| 379 | 3652 Taylor ... ... | 8·2 | 2 | 8 | 25 | 43·63 | 130 | 2 | 38·3 | 2 | 0·16 |
| 380 | 3393 Lacaille ... ... | 7·9 | 2 | 8 | 25 | 56·92 | 149 | 40 | 8·6 | 2 | 0·12 |
| 381 | ... ... ... ... | 9·1 | 1 | 8 | 26 | 25·43 | 130 | 30 | 28·1 | 1 | 0·27 |
| 382 | VIII 635 W. B. N. ... | 9·0 | 4 | 8 | 27 | 38·93 | 73 | 48 | 19·4 | 4 | 0·17 |
| 383 | U Cancri Var. 4 ... ... | 9·7 | 2 | 8 | 27 | 58·93 | 70 | 38 | 20·4 | 2 | 0·10 |
| 384 | 3672 Taylor ... . | 7·2 | 2 | 8 | 28 | 29·05 | 74 | 13 | 7·8 | 3 | 0·13 |
| 385 | 16890 Lalande ... .. | 8·9 | 3 | 8 | 28 | 41·64 | 73 | 12 | 52·3 | 3 | 0·26 |

356.—R Cancri Var. 1.—Period 354 days.—Range, 6th to 12th magnitude.
358.—360.—Comparison stars for Ariadne in 1863.
370.—Comparison star for new variable star W Cancri Var. 5.
372.—376.—382.—384.—385.—Comparison stars for Freia.
383.—U Cancri Var. 4.—Period 306 days.—Range, 9th magnitude to invisibility.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 351 | 3200 Lacaille ... | + 0·8156 | − 0·0172 | ... | + 10·358 | + 0·008 | ... | ... |
| 352 | ... ... ... | + 2·0878 | + 0·0013 | ... | + 10·428 | + 0·256 | ... | ... |
| 353 | ... ... ... | + 3·3198 | − 0·0080 | ... | + 10·429 | + 0·410 | ... | ... |
| 354 | ... ... ... | + 3·3270 | − 0·0081 | ... | + 10·437 | + 0·410 | ... | ... |
| 355 | ... ... ... | + 3·3245 | − 0·0081 | ... | + 10·651 | + 0·406 | ... | ... |
| 356 | R Cancri Var. 1 ... | + 3·3153 | − 0·0080 | ... | + 10·707 | + 0·404 | ... | ... |
| 357 | ... ... ... | + 3·3236 | − 0·0082 | ... | + 10·711 | + 0·405 | ... | ... |
| 358 | ... ... ... | + 3·3897 | − 0·0096 | ... | + 10·770 | + 0·412 | ... | ... |
| 359 | ... ... ... | + 3·3191 | − 0·0082 | ... | + 10·811 | + 0·403 | ... | ... |
| 360 | 16224 Lalande .. | + 3·3970 | − 0·0097 | ... | + 10·817 | + 0·412 | ... | ... |
| 361 | ... ... .. | + 2·1736 | + 0·0018 | ... | + 10·944 | + 0·261 | ... | ... |
| 362 | ... ... ... | + 2·1763 | + 0·0018 | ... | + 10·978 | + 0·261 | ... | ... |
| 363 | ... ... . | + 2·1083 | + 0·0013 | ... | + 10·993 | + 0·252 | ... | ... |
| 364 | ... ... ... | + 2·0773 | + 0·0015 | ... | + 11·021 | + 0·248 | ... | .. |
| 365 | ... ... .. | + 2·0209 | + 0·0013 | ... | + 11·047 | + 0·241 | ... | ... |
| 366 | ... ... .. | + 0·7810 | − 0·0198 | ... | + 11·106 | + 0·020 | ... | ... |
| 367 | ... ... ... | + 3·3169 | − 0·0085 | ... | + 11·246 | + 0·395 | ... | ... |
| 368 | ... ... ... | + 3·3104 | − 0·0084 | ... | + 11·314 | + 0·394 | ... | ... |
| 369 | ... ... ... | + 1·6961 | − 0·0014 | ... | + 11·315 | + 0·199 | ... | ... |
| 370 | VIII 459 W. B. N. ... | + 3·3765 | − 0·0100 | ... | + 11·523 | + 0·398 | ... | ... |
| 371 | 29 Cancri ... .. | + 3·3576 | − 0·0096 | − 0·002 | + 11·577 | + 0·395 | + 0·01 | 2836 |
| 372 | ... ... .. | + 3·3948 | − 0·0100 | ... | + 11·726 | + 0·397 | ... | .. |
| 373 | 3620 Taylor ... .. | + 2·1361 | + 0·0020 | ... | + 11·730 | + 0·248 | ... | ... |
| 374 | ... ... .. | + 2·2060 | + 0·0023 | .. | + 11·755 | + 0·256 | ... | .. |
| 375 | 31 Cancri θ ... .. | + 3·4353 | − 0·0118 | − 0·006 | + 11·777 | + 0·401 | + 0·06 | 2853 |
| 376 | ... ... .. | + 3·3864 | − 0·0106 | ... | + 11·841 | + 0·394 | .. | .. |
| 377 | 33 Cancri η ... .. | + 3·4839 | − 0·0129 | − 0·005 | + 11·818 | + 0·404 | + 0·05 | 2862 |
| 378 | 3651 Taylor ... .. | + 2·1674 | + 0·0022 | ... | + 11·903 | + 0·249 | ... | .. |
| 379 | 3652 Taylor ... ... | + 2·1681 | + 0·0022 | .. | + 11·910 | + 0·249 | ... | ... |
| 380 | 3393 Lacaille .. | + 1·2348 | − 0·0095 | ... | + 11·926 | + 0·140 | . | . |
| 381 | ... ... . | + 2·1552 | + 0·0022 | . | + 11·989 | + 0·247 | ... | ... |
| 382 | VIII 635 W. B. N ... | + 3·3825 | − 0·0107 | .. | + 12·045 | + 0·390 | ... | ... |
| 383 | U Cancri Var. 4 .. | + 3·4173 | − 0·0124 | ... | + 12·098 | + 0·397 | . | ... |
| 384 | 3672 Taylor .. .. | + 3·3734 | − 0·0105 | .. | + 12·104 | + 0·387 | ... | 2888 |
| 385 | 16820 Lalande ... | + 3·3934 | − 0·0110 | ... | + 12·118 | + 0·389 | ... | ... |

371.—Proper Motions adopted from "*Greenwich Catalogue.*"

*Mean Positions of Stars for 1864 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 386 | VIII 684 W. B. N. ... | 8·9 | 1 | 8 | 29 | 1·20 | 70 | 38 | 54·4 | 1 | 0·27 |
| 387 | VIII 699 W. B. N. ... | 9·0 | 1 | 8 | 29 | 31·11 | 70 | 39 | 37·1 | 1 | 0·25 |
| 388 | ... ... ... ... | 9·4 | 1 | 8 | 31 | 12·43 | 129 | 45 | 24·0 | 1 | 0·16 |
| 389 | 3710 Taylor ... .. | 8·2 | 1 | 8 | 31 | 24·29 | 141 | 21 | 4·0 | 1 | 0·15 |
| 390 | ... ... ... ... | 8·6 | 1 | 8 | 33 | 9·73 | 129 | 23 | 27·0 | 1 | 0·20 |
| 391 | VIII 852 W. B. N. ... | 8·9 | 3 | 8 | 34 | 1·84 | 74 | 7 | 39·7 | 3 | 0·13 |
| 392 | ... ... ... ... | 9·0 | 3 | 8 | 34 | 39·45 | 129 | 46 | 11·8 | 3 | 0·18 |
| 393 | 3491 Lacaille ... ... | 7·9 | 1 | 8 | 36 | 1·13 | 152 | 21 | 51·3 | 1 | 0·27 |
| 394 | S Cancri Var. 2 ... | 8·3 | 1 | 8 | 36 | 9·77 | 70 | 28 | 48·0 | 1 | 0·27 |
| 395 | 3767 Taylor ... ... | 7·6 | 1 | 8 | 36 | 19·67 | 140 | 50 | 15·2 | 1 | 0·19 |
| 396 | 47 Cancri δ ... ... | 4·3 | ... | 8 | 36 | 57·18 | 71 | 20 | 55·9 | 1 | 0·95 |
| 397 | ... ... ... ... | 9·2 | 1 | 8 | 37 | 16·10 | 136 | 8 | 32·1 | 1 | 0·26 |
| 398 | 17231 Lalande ... ... | 7·9 | 2 | 8 | 37 | 44·14 | 74 | 27 | 41·3 | 3 | 0·14 |
| 399 | ... ... ... ... | 8·3 | 2 | 8 | 37 | 50·55 | 136 | 5 | 33·6 | 2 | 0·20 |
| 400 | VIII 977 W. B. N. .. | 9·5 | 3 | 8 | 39 | 15·23 | 74 | 49 | 0·5 | 3 | 0·12 |
| 401 | 11 Hydræ ε ... ... | 3·5 | ... | 8 | 39 | 34·29 | 83 | 5 | 4·5 | 6 | 0·18 |
| 402 | ... ... ... ... | 8·5 | 1 | 8 | 40 | 29·34 | 129 | 15 | 34·0 | 1 | 0·15 |
| 403 | VIII 1043 W. B. N. ... | 8·3 | 3 | 8 | 42 | 21·48 | 74 | 39 | 54·4 | 3 | 0·11 |
| 404 | ... ... ... ... | 8·7 | 2 | 8 | 45 | 46·93 | 86 | 27 | 12·1 | 2 | 0·26 |
| 405 | 60 R. P. L. ... ... | 6·5 | ... | 8 | 46 | 23·08 | 5 | 16 | 53·9 | 6 | 0·40 |
| 406 | S Hydræ Var. 3 ... ... | 8·8 | 2 | 8 | 46 | 28·36 | 86 | 25 | 13·4 | 2 | 0·23 |
| 407 | 3886 Taylor ... ... | 7·9 | 3 | 8 | 48 | 14·02 | 136 | 52 | 52·8 | 3 | 0·17 |
| 408 | T Hydræ Var. 4 ... ... | 9·9 | 2 | 8 | 49 | 2·74 | 90 | 37 | 29·2 | 2 | 0·23 |
| 409 | ... ... ... ... | 7·7 | 1 | 8 | 49 | 13·13 | 132 | 54 | 19·8 | 1 | 0·19 |
| 410 | ... ... ... ... | 7·6 | 1 | 8 | 49 | 20·12 | 132 | 59 | 0·7 | 1 | 0·17 |
| 411 | 9 Ursæ Majoris ι ... ... | 3·0 | ... | 8 | 49 | 52·84 | 41 | 25 | 37·7 | 4 | 0·15 |
| 412 | ... ... ... ... | 8·0 | 1 | 8 | 50 | 15·28 | 132 | 56 | 55·1 | 1 | 0·18 |
| 413 | ... ... ... ... | 9·8 | 1 | 8 | 50 | 46·62 | 98 | 44 | 16·8 | 1 | 0·13 |
| 414 | VIII 1302 W. B. E. ... | 9·0 | 1 | 8 | 50 | 49·33 | 98 | 53 | 46·7 | 1 | 0·23 |
| 415 | ... ... ... ... | 9·2 | 2 | 8 | 50 | 58·82 | 98 | 35 | 9·3 | 2 | 0·17 |
| 416 | 65 Cancri α ... ... | 4·7 | ... | 8 | 51 | 2·70 | 77 | 37 | 6·1 | 2 | 0·21 |
| 417 | ... ... ... ... | 9·3 | 2 | 8 | 54 | 9·86 | 142 | 41 | 8·8 | 2 | 0·19 |
| 418 | ... ... ... ... | 8·4 | 1 | 8 | 54 | 20·33 | 130 | 34 | 53·3 | 1 | 0·28 |
| 419 | 3941 Taylor ... ... | 8·5 | 1 | 8 | 54 | 59·75 | 144 | 6 | 23·4 | 1 | 0·10 |
| 420 | ... ... ... ... | 8·1 | 1 | 8 | 56 | 39·30 | 146 | 55 | 41·0 | 1 | 0·27 |

391.—398.—400.—403.—Comparison stars for the planet Freia.
394.—S Cancri Var. 2.—Period 9·48 days.—Range, 8th to 10·5 magnitude.
405.—1286 Carrington.
406.—S Hydræ Var. 3.—Period 256 days.—Range, 8th to 13th magnitude.
408.—T Hydræ Var. 4.—Period 289 days.—Range, 7th to 12th magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 386 | VIII 684 W. B. N. ... | + 3·4458 | − 0·0124 | ... | + 12·141 | + 0·396 | ... | ... |
| 387 | VIII 699 W. B. N. ... | + 3·4449 | − 0·0124 | ... | + 12·175 | + 0·394 | ... | ... |
| 388 | ... .. ... | + 2·1933 | + 0·0014 | ... | + 12·293 | + 0·222 | ... | . |
| 389 | 3710 Taylor ... .. | + 1·7519 | − 0·0006 | ... | + 12·306 | + 0·197 | ... | . |
| 390 | ... ... .. | + 2·2104 | + 0·0026 | ... | + 12·427 | + 0·248 | ... | ... |
| 391 | VIII 852 W. B. N. ... | + 3·3696 | − 0·0109 | .. | + 12·487 | + 0·379 | ... | ... |
| 392 | . ... .. | + 2·2031 | + 0·0027 | ... | + 12·529 | + 0·246 | ... | .. |
| 393 | 3491 Lacaille ... | + 1·0877 | − 0·0141 | ... | + 12·623 | + 0·118 | ... | 2940 |
| 394 | S Cancri Var. 2 ... | + 3·4402 | − 0·0130 | ... | + 12·632 | + 0·385 | ... | .. |
| 395 | 3767 Taylor ... ... | + 1·2862 | − 0·0089 | ... | + 12·643 | + 0·141 | ... | ... |
| 396 | 47 Cancri δ ... ... | + 3·4216 | − 0·0125 | − 0·002 | + 12·686 | + 0·382 | + 0·24 | 2953 |
| 397 | ... ... ... | + 1·9961 | + 0·0019 | ... | + 12·707 | + 0·220 | ... | .. |
| 398 | 17231 Lalande ... | + 3·3592 | − 0·0109 | ... | + 12·738 | + 0·373 | ... | ... |
| 399 | ... .. ... | + 1·9997 | + 0·0019 | ... | + 12·746 | + 0·220 | ... | ... |
| 400 | VIII 977 W. B. N. ... | + 3·3508 | − 0·0108 | ... | + 12·841 | + 0·369 | ... | ... |
| 401 | 11 Hydræ ε . ... | + 3·1964 | − 0·0071 | − 0·013 | + 12·862 | + 0·351 | + 0·04 | 2971 |
| 402 | ... ... ... | + 2·2365 | + 0·0031 | ... | + 12·924 | + 0·244 | ... | ... |
| 403 | VIII 1043 W. B. N.... | + 3·3505 | − 0·0109 | ... | + 13·048 | + 0·365 | ... | ... |
| 404 | ... ... ... | + 3·1342 | − 0·0058 | ... | + 13·275 | + 0·277 | ... | ... |
| 405 | 60 R. P. L. ... ... | + 13·8924 | − 1·7345 | ... | + 13·314 | + 1·509 | ... | ... |
| 406 | S Hydræ Var. 3 ... | + 3·1347 | − 0·0059 | ... | + 13·320 | + 0·336 | ... | ... |
| 407 | 3886 Taylor ... .. | + 2·0120 | + 0·0025 | ... | + 13·434 | + 0·212 | ... | ... |
| 408 | T Hydræ Var. 4 ... | + 2·9220 | − 0·0018 | ... | + 13·488 | + 0·309 | ... | ... |
| 409 | ... ... ... | + 2·1530 | + 0·0033 | ... | + 13·498 | + 0·226 | .. | ... |
| 410 | ... ... ... | + 2·1510 | + 0·0033 | ... | + 13·506 | + 0·226 | ... | ... |
| 411 | 9 Ursæ Majoris ι ... | + 4·1896 | − 0·0446 | − 0·047 | + 13·541 | + 0·443 | + 0·28 | 3048 |
| 412 | ... .. .. | + 2·1559 | + 0·0034 | ... | + 13·566 | + 0·226 | ... | ... |
| 413 | .. ... ... | + 2·9210 | − 0·0016 | ... | + 13·599 | + 0·307 | .. | ... |
| 414 | VIII 1302 W. B. K. ... | + 2·9183 | − 0·0016 | ... | + 13·602 | + 0·307 | ... | ... |
| 415 | ... ... ... | + 2·9238 | − 0·0019 | ... | + 13·613 | + 0·307 | .. | ... |
| 416 | 66 Cancri α ... ... | + 3·2876 | + 0·0008 | 0·000 | + 13·616 | + 0·346 | + 0·04 | 3065 |
| 417 | — ... .. | + 1·8005 | + 0·0005 | ... | + 13·815 | + 0·184 | ... | ... |
| 418 | ... ... .. | + 2·2426 | + 0·0039 | ... | + 13·826 | + 0·231 | ... | ... |
| 419 | 3941 Taylor .. .. | + 1·7375 | − 0·0008 | .. | + 13·867 | + 0·177 | ... | ... |
| 420 | ... ... | + 1·5992 | + 0·0027 | ... | + 13·972 | + 0·161 | ... | ... |

## *Mean Positions of Stars for* 1864 *January* 1*st*,

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 421 | ... ... ... ... | 9·5 | 1 | 8 | 56 | 43·30 | 129 | 18 | 12·4 | 1 | 0·15 |
| 422 | ... ... ... ... | 9·0 | ... | 8 | 58 | 5·43 | 146 | 49 | 41·4 | 1 | 0·24 |
| 423 | ... ... ... ... | 9·0 | 1 | 8 | 58 | 9·40 | 146 | 18 | 23·9 | 1 | 0·27 |
| 424 | ... ... ... ... | 8·9 | 3 | 8 | 59 | 6·04 | 145 | 38 | 9·23 | 3 | 0·21 |
| 425 | 76 Cancri κ ... ... | 5·5 | ... | 9 | 0 | 22·78 | 78 | 47 | 12·3 | 3 | 0·16 |
| 426 | ... ... ... ... | 8·2 | 2 | 9 | 1 | 3·51 | 150 | 1 | 31·8 | 2 | 0·19 |
| 427 | ... ... ... ... | 8·0 | 1 | 9 | 1 | 50·14 | 128 | 57 | 10·7 | 1 | 0·21 |
| 428 | 3705 Lacaille ... ... | 7·2 | 2 | 9 | 2 | 13·95 | 151 | 17 | 3·6 | 2 | 0·29 |
| 429 | ... ... ... ... | 10·5 | 1 | 9 | 2 | 15·75 | 71 | 26 | 28·1 | 1 | 0·16 |
| 430 | ... ... ... ... | 8·7 | 1 | 9 | 4 | 23·60 | 130 | 29 | 40·7 | 1 | 0·28 |
| 431 | 3713 Lacaille ... ... | 8·8 | 1 | 9 | 4 | 34·83 | 143 | 49 | 12·4 | 1 | 0·21 |
| 432 | 4021 Taylor ... ... | 7·1 | 2 | 9 | 5 | 31·14 | 138 | 44 | 11·5 | 2 | 0·18 |
| 433 | ... ... ... ... | 7·7 | 1 | 9 | 6 | 26·92 | 142 | 29 | 27·7 | 1 | 0·27 |
| 434 | ... ... ... ... | 8·8 | 1 | 9 | 6 | 30·83 | 138 | 41 | 30·2 | 1 | 0·15 |
| 435 | ... ... ... ... | 8·6 | 3 | 9 | 8 | 14·25 | 148 | 14 | 15·1 | 3 | 0·18 |
| 436 | 83 Cancri ... ... ... | 6·7 | ... | 9 | 11 | 23·12 | 71 | 43 | 13·5 | 4 | 0·23 |
| 437 | ... ... ... ... | 8·2 | 4 | 9 | 11 | 48·62 | 130 | 45 | 7·9 | 4 | 0·21 |
| 438 | ... ... ... ... | 7·9 | 2 | 9 | 13 | 3·26 | 72 | 17 | 57·5 | 3 | 0·22 |
| 439 | ι Argûs ... ... ... | 2·0 | ... | 9 | 13 | 27·06 | 148 | 42 | 22·3 | 3 | 0·23 |
| 440 | ... ... ... ... | 8·6 | 2 | 9 | 14 | 37·92 | 24 | 50 | 29·3 | 2 | 0·25 |
| 441 | ... ... ... ... | 9·0 | 1 | 9 | 15 | 15·46 | 143 | 48 | 40·2 | 1 | 0·22 |
| 442 | ... ... ... .. | 9·0 | 1 | 9 | 15 | 54·93 | 25 | 4 | 26·1 | 1 | 0·23 |
| 443 | ... ... ... ... | 9·0 | 1 | 9 | 16 | 6·17 | 140 | 7 | 34·8 | 1 | 0·16 |
| 444 | 9881 O. A. N. ... ... | 9·2 | 2 | 9 | 17 | 37·29 | 25 | 3 | 44·7 | 2 | 0·18 |
| 445 | ... ... ... ... | 7·7 | 3 | 9 | 19 | 29·08 | 75 | 6 | 31·1 | 2 | 0·16 |
| 446 | 30 Hydræ α Var. 1 ... | 2·3 | ... | 9 | 20 | 54·21 | 98 | 4 | 15·5 | 6 | 0·21 |
| 447 | 3853 Lacaille ... ... | 8·1 | 3 | 9 | 22 | 32·01 | 131 | 59 | 15·8 | 3 | 0·23 |
| 448 | 25 Ursæ Majoris θ ... | 3·3 | ... | 9 | 23 | 44·56 | 37 | 42 | 18·9 | 2 | 0·18 |
| 449 | 3886 Lacaille ... .. | 7·8 | 1 | 9 | 24 | 43·28 | 141 | 49 | 48·5 | 1 | 0·21 |
| 450 | 3887 Lacaille ... ... | 8·1 | 2 | 9 | 24 | 55·04 | 140 | 0 | 31·7 | 2 | 0·24 |
| 451 | ... ... ... .. | 9·0 | 3 | 9 | 26 | 42·19 | 145 | 2 | 26·6 | 3 | 0·23 |
| 452 | ... ... ... ... | 9·0 | 1 | 9 | 26 | 55·57 | 144 | 58 | 8·4 | 1 | 0·25 |
| 453 | ... ... ... ... | 8·3 | 1 | 9 | 27 | 58·54 | 128 | 45 | 53·6 | 1 | 0·27 |
| 454 | 4226 Taylor ... .. | 7·0 | 1 | 9 | 28 | 37·63 | 146 | 29 | 33·0 | 1 | 0·15 |
| 455 | ... ... .. .. | 8·2 | 1 | 9 | 28 | 54·88 | 128 | 46 | 55·4 | 1 | 0·15 |

440. - 442.—444.—Comparison stars for Comet 2 of 1861.
446.—α Hydræ Var. 1.—Supposed to vary irregularly from 2·0 to 2·5 magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 421 | ... ... ... | + 2·2872 | + 0·0040 | ... | + 13·976 | + 0·233 | ... | ... |
| 422 | ... ... ... | + 1·6138 | − 0·0024 | ... | + 14·062 | + 0·162 | ... | ... |
| 423 | ... ... ... | + 1·6428 | − 0·0018 | ... | + 14·066 | + 0·165 | ... | ... |
| 424 | ... ... ... | + 1·6840 | − 0·0010 | ... | + 14·126 | + 0·169 | ... | ... |
| 425 | 76 Cancri κ ... ... | + 3·2592 | − 0·0094 | − 0·002 | + 14·204 | + 0·330 | + 0·00 | 3111 |
| 426 | ... ... ... | + 1·4405 | − 0·0062 | ... | + 14·247 | + 0·142 | ... | ... |
| 427 | ... ... ... | + 2·3140 | + 0·0044 | ... | + 14·294 | + 0·231 | ... | ... |
| 428 | 3705 Lacaille ... | + 1·3633 | − 0·0063 | ... | + 14·319 | + 0·133 | ... | ... |
| 429 | ... ... ... | + 3·3864 | − 0·0133 | ... | + 14·320 | + 0·340 | ... | ... |
| 430 | ... ... ... | + 2·2804 | + 0·0047 | ... | + 14·450 | + 0·225 | ... | ... |
| 431 | 3713 Lacaille | + 1·8055 | + 0·0010 | ... | + 14·462 | + 0·176 | ... | ... |
| 432 | 4021 Taylor ... | + 2·0209 | + 0·0037 | | + 14·518 | + 0·197 | ... | ... |
| 433 | ... ... ... | + 1·8755 | + 0·0022 | ... | + 14·575 | + 0·182 | ... | ... |
| 434 | ... ... ... | + 2·0272 | + 0·0037 | ... | + 14·578 | + 0·197 | ... | ... |
| 435 | ... ... ... | + 1·6009 | − 0·0025 | ... | + 14·682 | + 0·153 | | ... |
| 436 | 83 Cancri ... | + 3·3634 | − 0·0134 | − 0·012 | + 14·867 | + 0·323 | + 0·16 | 3171 |
| 437 | ... ... ... | + 2·3004 | + 0·0052 | | + 14·893 | + 0·219 | ... | ... |
| 438 | ... ... ... | + 3·3561 | − 0·0131 | ... | + 14·966 | + 0·320 | ... | ... |
| 439 | ι Argûs ... | + 1·6106 | − 0·0022 | − 0·008 | + 14·988 | + 0·150 | + 0·02 | 3186 |
| 440 | ... ... ... | + 4·9798 | − 0·1130 | ... | + 15·056 | + 0·473 | ... | ... |
| 441 | ... ... ... | + 1·8686 | + 0·0026 | ... | + 15·093 | + 0·174 | ... | ... |
| 442 | ... ... ... | + 4·9476 | − 0·1123 | ... | + 15·130 | + 0·466 | ... | ... |
| 443 | ... ... ... | + 2·0225 | + 0·0045 | ... | + 15·141 | + 0·186 | ... | ... |
| 444 | 9881 O. A. N. ... | + 4·9325 | − 0·1126 | ... | + 15·229 | + 0·461 | ... | ... |
| 445 | ... ... ... | + 3·3012 | − 0·0116 | ... | + 15·334 | + 0·303 | ... | ... |
| 446 | 30 Hydræ α Var. 1 ... | + 2·9506 | − 0·0013 | − 0·004 | + 15·415 | + 0·268 | − 0·03 | 3223 |
| 447 | 3853 Lacaille | + 2·3089 | + 0·0063 | ... | + 15·504 | + 0·207 | ... | ... |
| 448 | 25 Ursæ Majoris θ ... | + 4·1620 | − 0·0561 | − 0·111 | + 15·571 | + 0·374 | + 0·57 | 3242 |
| 449 | 3886 Lacaille ... | + 2·0057 | + 0·0052 | ... | + 15·626 | + 0·176 | ... | ... |
| 450 | 3887 Lacaille ... | + 2·0740 | + 0·0057 | ... | + 15·636 | + 0·182 | ... | ... |
| 451 | ... ... ... | + 1·8962 | + 0·0037 | ... | + 15·733 | + 0·161 | ... | ... |
| 452 | ... ... ... | + 1·8907 | + 0·0038 | ... | + 15·745 | + 0·164 | ... | ... |
| 453 | ... ... ... | + 2·4110 | + 0·0066 | ... | + 15·802 | + 0·210 | ... | ... |
| 454 | 4226 Taylor ... | + 1·8332 | + 0·0030 | ... | + 15·837 | + 0·157 | ... | ... |
| 455 | ... ... ... | + 2·4142 | + 0·0067 | | + 15·882 | + 0·209 | ... | ... |

439.—Proper Motions taken from Mr. Stone's list; "*Mem. R. A. S.*" Vol. 42.

*Mean Positions of Stars for 1864 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 456 | ... ... ... ... | 8·3 | 2 | 9 | 29 | 1·32 | 128 | 49 | 33·9 | 2 | 0·17 |
| 457 | 4250 Taylor ... ... | 5·3 | 1 | 9 | 31 | 57·68 | 138 | 44 | 48·5 | 1 | 0·17 |
| 458 | ... ... ... ... | 8·8 | 3 | 9 | 32 | 27·63 | 129 | 53 | 53·7 | 3 | 0·21 |
| 459 | ... ... ... ... | 7·8 | 1 | 9 | 32 | 54·20 | 129 | 47 | 34·1 | 1 | 0·21 |
| 460 | 14 Leonis o ... | 4·0 | ... | 9 | 33 | 53·35 | 79 | 29 | 27·6 | 1 | 0·18 |
| 461 | ... ... ... | 8·9 | 3 | 9 | 34 | 43·92 | 130 | 34 | 39·4 | 3 | 0·19 |
| 462 | ... ... .. ... | 8·5 | 1 | 9 | 35 | 33·97 | 151 | 56 | 22·6 | 1 | 0·27 |
| 463 | 17 Leonis ε . .. | 3·0 | ... | 9 | 38 | 7·54 | 65 | 36 | 6·1 | 8 | 0·19 |
| 464 | R Leonis Var. 1 . . ... | 6·0 | 5 | 9 | 40 | 14·42 | 77 | 56 | 32·3 | 5 | 0·26 |
| 465 | ... ... .. ... | 8·7 | 1 | 9 | 41 | 50·08 | 130 | 49 | 18·8 | 1 | 0·07 |
| 466 | ... ... ... .. | 9·0 | 1 | 9 | 42 | 42·08 | 130 | 47 | 49·2 | 1 | 0·23 |
| 467 | ... ... ... ... | 9·0 | 3 | 9 | 43 | 27·09 | 143 | 56 | 50·4 | 3 | 0·21 |
| 468 | ... ... ... ... | 7·7 | 1 | 9 | 43 | 34·18 | 143 | 45 | 55·2 | 1 | 0·19 |
| 469 | ... ... ... .. | 8·8 | 1 | 9 | 45 | 55·93 | 129 | 2 | 51·8 | 1 | 0·22 |
| 470 | 70 R. P. L. ... .. | 6·5 | ... | 9 | 46 | 18·04 | 5 | 25 | 49·2 | 3 | 0·21 |
| 471 | ... ... ... ... | 9·2 | 2 | 9 | 46 | 26·54 | 129 | 6 | 56·4 | 2 | 0·18 |
| 472 | IX 1057 W. B. E. ... | 7·3 | 3 | 9 | 49 | 44·67 | 85 | 6 | 42·1 | 3 | 0·14 |
| 473 | 4402 Taylor ... .. | 7·6 | 3 | 9 | 49 | 53·40 | 129 | 47 | 30·0 | 3 | 0·27 |
| 474 | 29 Leonis π ... ... | 5·0 | ... | 9 | 53 | 1·46 | 81 | 18 | 17·5 | 10 | 0·19 |
| 475 | . . . ... ... | 9·3 | 1 | 9 | 53 | 52·92 | 152 | 6 | 48·9 | 1 | 0·27 |
| 476 | 4445 Taylor ... ... | 8·1 | 4 | 9 | 54 | 43·19 | 147 | 28 | 40·8 | 4 | 0·19 |
| 477 | ... ... ... .. | 8·3 | 1 | 9 | 56 | 26·50 | 144 | 3 | 50·4 | 1 | 0·18 |
| 478 | ... ... ... .. | 9·0 | 1 | 9 | 57 | 7·36 | 129 | 56 | 40·4 | 1 | 0·16 |
| 479 | 4476 Taylor ... .. | 8·5 | 1 | 9 | 57 | 51·23 | 145 | 36 | 4·3 | 1 | 0·25 |
| 480 | ... ... ... .. | 8·8 | 2 | 9 | 58 | 26·00 | 150 | 38 | 57·9 | 2 | 0·30 |
| 481 | 14 Sextantis ... | 6·0 | .. | 9 | 59 | 40·60 | 83 | 43 | 36·5 | 1 | 0·14 |
| 482 | 31 Leonis A ... | 5·0 | .. | 10 | 0 | 41·11 | 79 | 20 | 15·0 | 1 | 0·21 |
| 483 | 32 Leonis α (*Regulus*) .. | 1·3 | ... | 10 | 1 | 7·55 | 77 | 22 | 10·5 | 11 | 0·25 |
| 484 | ... ... ... .. | 9·0 | 1 | 10 | 2 | 46·64 | 129 | 57 | 38·4 | 1 | 0·16 |
| 485 | 4538 Taylor ... .. | 7·5 | 3 | 10 | 6 | 9·42 | 129 | 19 | 27·1 | 3 | 0·20 |
| 486 | .. ... ... .. | 9·1 | 1 | 10 | 9 | 1·46 | 139 | 51 | 41·8 | 1 | 0·18 |
| 487 | 72 R. P. L. ... | 5·9 | | 10 | 9 | 20·72 | 5 | 3 | 38·2 | 5 | 0·18 |
| 488 | 4577 Taylor .. | 8·8 | 2 | 10 | 9 | 47·74 | 128 | 36 | 58·0 | 2 | 0·25 |
| 489 | .. .. ... .. | 9·0 | 1 | 10 | 10 | 15·97 | 130 | 51 | 9·0 | 1 | 0·28 |
| 490 | 41 Leonis γ¹ .. | 2·5 | ... | 10 | 12 | 28·18 | [illegible] | 28 | 19·9 | 12 | 0·24 |

464.—R Leonis Var. 1.—Period 312 days.—Range, 5th to 10th magnitude.
470.—1421 Carrington.
472.—Comparison star for Asia in 1864.
487.—1620 Groombridge.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 456 | ... .. .. | + 2·4135 | + 0·0068 | ... | + 15·858 | + 0·208 | . | ... |
| 457 | 4259 Taylor .. .. | + 2·1545 | + 0·0063 | ... | + 16·014 | + 0·182 | . | 2300 |
| 458 | ... ... .. | + 2·4011 | + 0·0072 | ... | + 16·041 | + 0·208 | .. | ... |
| 459 | ... ... .. | + 2·4054 | + 0·0072 | ... | + 16·064 | + 0·208 | ... | ... |
| 460 | 14 Leonis ο ... | + 3·2197 | − 0·0098 | − 0·013 | + 16·115 | + 0·273 | + 0·04 | 2312 |
| 461 | ... ... .. | + 2·3939 | + 0·0075 | ... | + 16·160 | + 0·200 | ... | ... |
| 462 | ... ... ... | + 1·5939 | − 0·0020 | ... | + 16·208 | + 0·130 | ... | ... |
| 463 | 17 Leonis ε ... .. | + 3·4239 | − 0·0180 | − 0·004 | + 16·334 | + 0·282 | + 0·02 | 2331 |
| 464 | R Leonis Var. 1 ... | + 3·2356 | − 0·0101 | ... | + 16·440 | + 0·263 | ... | 2345 |
| 465 | ... ... ... | + 2·4172 | + 0·0083 | ... | + 16·520 | + 0·193 | ... | ... |
| 466 | ... ... ... | + 2·4214 | + 0·0084 | ... | + 16·562 | + 0·192 | ... | ... |
| 467 | ... ... .. | + 2·0414 | + 0·0075 | ... | + 16·599 | + 0·160 | ... | ... |
| 468 | ... ... .. | + 2·0490 | + 0·0075 | ... | + 16·605 | + 0·160 | ... | ... |
| 469 | ... ... .. | + 2·4783 | + 0·0086 | ... | + 16·720 | + 0·192 | ... | ... |
| 470 | 70 R. P. L. ... .. | + 10·8196 | − 1·5902 | ... | + 16·738 | + 0·860 | ... | ... |
| 471 | ... ... .. | + 2·4738 | + 0·0086 | ... | + 16·745 | + 0·192 | ... | ... |
| 472 | IX 1057 W. B. E. ... | + 3·1337 | − 0·0062 | ... | + 16·903 | + 0·239 | ... | .. |
| 473 | 4402 Taylor ... ... | + 2·4732 | + 0·0091 | ... | + 16·909 | + 0·157 | ... | ... |
| 474 | 29 Leonis π ... .. | + 3·1796 | − 0·0060 | − 0·003 | + 17·055 | + 0·236 | 0·03 | 3415 |
| 475 | ... ... .. | + 1·7509 | + 0·0084 | ... | + 17·094 | + 0·127 | ... | ... |
| 476 | 4445 Taylor ... .. | + 1·9821 | + 0·0083 | ... | + 17·133 | + 0·143 | .. | .. |
| 477 | . ... ... | + 2·1251 | + 0·0102 | .. | + 17·210 | + 0·152 | ... | ... |
| 478 | ... ... .. | + 2·5001 | + 0·0099 | ... | + 17·240 | + 0·179 | ... | ... |
| 479 | 4476 Taylor ... .. | + 2·0799 | + 0·0100 | ... | + 17·273 | + 0·147 | ... | ... |
| 480 | ... ... . | + 1·8603 | + 0·0067 | ... | + 17·299 | + 0·131 | ... | ... |
| 481 | 14 Sextantis ... .. | + 3·1456 | − 0·0066 | − 0·005 | + 17·355 | + 0·222 | + 0·01 | 3449 |
| 482 | 31 Leonis A ... . | + 3·1073 | − 0·0091 | − 0·009 | + 17·398 | + 0·225 | + 0·05 | 3457 |
| 483 | 32 Leonis α (*Regulus*) | + 3·2205 | − 0·0102 | − 0·019 | + 17·417 | + 0·225 | − 0·01 | 3459 |
| 484 | ... ... .. | + 2·5238 | + 0·0106 | ... | + 17·488 | + 0·172 | ... | ... |
| 485 | 4538 Taylor ... .. | + 2·5503 | + 0·0109 | ... | + 17·631 | + 0·169 | .. | ... |
| 486 | ... ... .. | + 2·3340 | + 0·0131 | ... | + 17·749 | + 0·150 | ... | ... |
| 487 | 72 R. P. L. .. .. | + 10·0817 | − 1·6686 | − 0·079 | + 17·762 | + 0·675 | + 0·06 | 3495 |
| 488 | 4577 Taylor ... .. | + 2·5762 | + 0·0112 | .. | + 17·781 | + 0·166 | . | ... |
| 489 | ... ... | + 2·3419 | + 0·0134 | .. | + 17·800 | + 0·149 | .. | ... |
| 490 | 41 Leonis $\gamma^1$ . | + 3·2263 | − 0·0148 | + 0·019 | + 17·888 | + 0·208 | + 0·15 | 3523 |

481.—Proper Motions adopted from "*Greenwich Catalogue.*"

## *Mean Positions of Stars for 1864 January 1st.*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 491 | 43 Leonis ... ... ... | 6·5 | ... | 10 | 15 | 53·40 | 82 | 46 | 5·1 | 2 | 0·07 |
| 492 | ... ... ... ... | 9·2 | 2 | 10 | 16 | 8·20 | 75 | 24 | 30·6 | 2 | 0·26 |
| 493 | ... ... ... ... | 8·9 | 2 | 10 | 16 | 11·79 | 129 | 16 | 16·5 | 2 | 0·17 |
| 494 | 4653 Taylor ... ... | 8·4 | 1 | 10 | 18 | 1·94 | 151 | 23 | 10·5 | 1 | 0·18 |
| 495 | 45 Leonis ... ... ... | 6·0 | ... | 10 | 20 | 27·87 | 79 | 32 | 44·1 | 3 | 0·14 |
| 496 | ... ... ... ... | 9·0 | 1 | 10 | 21 | 55·82 | 146 | 59 | 1·4 | 1 | 0·28 |
| 497 | 30 Sextantis ... ... | 6·0 | ... | 10 | 23 | 20·43 | 89 | 56 | 25·8 | 2 | 0·22 |
| 498 | ... ... ... ... | 10·0 | 1 | 10 | 23 | 22·20 | 76 | 5 | 17·7 | 2 | 0·21 |
| 499 | 47 Leonis ρ ... ... | 4·3 | .. | 10 | 25 | 38·86 | 79 | 59 | 41·4 | 10 | 0·26 |
| 500 | ... ... ... ... | 9·2 | 1 | 10 | 29 | 12·38 | 147 | 54 | 36·6 | 1 | 0·28 |
| 501 | ... ... ... .. | 9·6 | 2 | 10 | 34 | 52·15 | 139 | 16 | 38·4 | 2 | 0·30 |
| 502 | ... ... ... ... | 9·2 | 1 | 10 | 35 | 22·25 | 137 | 19 | 31·7 | 1 | 0·32 |
| 503 | 36 Sextantis ... ... | 6·0 | ... | 10 | 38 | 8·91 | 86 | 47 | 51·7 | 1 | 0·22 |
| 504 | ... ... ... ... | 8·0 | 3 | 10 | 38 | 47·07 | 144 | 50 | 21·1 | 3 | 0·28 |
| 505 | η Argûs Var. 1 ... ... | ... | .. | 10 | 39 | 47·45 | 148 | 58 | 13·4 | 3 | 0·23 |
| 506 | ... ... ... ... | 9·0 | 1 | 10 | 41 | 25·52 | 146 | 23 | 11·9 | 1 | 0·20 |
| 507 | 53 Leonis l ... .. | 6·0 | ... | 10 | 42 | 6·36 | 78 | 41 | 10·3 | 11 | 0·26 |
| 508 | 4886 Taylor .. ... | 7·0 | 1 | 10 | 42 | 47·47 | 137 | 2 | 0·2 | 1 | 0·17 |
| 509 | ... ... ... ... | 8·1 | 3 | 10 | 45 | 4·13 | 141 | 45 | 4·6 | 3 | 0·31 |
| 510 | ... ... .. ... | 8·4 | 1 | 10 | 46 | 2·79 | 141 | 39 | 51·2 | 1 | 0·32 |
| 511 | .. ... .. ... | 9·0 | 1 | 10 | 47 | 52·85 | 150 | 5 | 33·6 | 1 | 0·30 |
| 512 | ... ... ... ... | 8·9 | 1 | 10 | 47 | 59·18 | 120 | 29 | 12·6 | 1 | 0·26 |
| 513 | .. . .. ... | 9·0 | 1 | 10 | 50 | 16·20 | 144 | 30 | 30·0 | 1 | 0·22 |
| 514 | 4955 Taylor ... ... | 6·8 | 1 | 10 | 50 | 40·47 | 147 | 19 | 36·3 | 1 | 0·28 |
| 515 | ... ... . ... | 9·0 | 1 | 10 | 52 | 15·94 | 143 | 36 | 15·0 | 1 | 0·23 |
| 516 | ... ... .. | 8·6 | 2 | 10 | 52 | 52·74 | 130 | 32 | 46·5 | 2 | 0·31 |
| 517 | 59 Leonis c ... ... | 5·5 | ... | 10 | 53 | 41·73 | 83 | 10 | 6·9 | 2 | 0·14 |
| 518 | 61 Leonis $p^2$ .. | 5·5 | ... | 10 | 54 | 53·58 | 91 | 45 | 12·8 | 1 | 0·07 |
| 519 | 50 Ursæ Majoris α | 2·0 | .. | 10 | 55 | 18·55 | 27 | 30 | 57·2 | 3 | 0·30 |
| 520 | ... | 8·2 | 1 | 10 | 56 | 59·48 | 145 | 32 | 27·4 | 1 | 0·36 |
| 521 | .. ... .. .. | 9·3 | 1 | 10 | 57 | 1·96 | 145 | 35 | 40·0 | 1 | 0·32 |
| 522 | 4576 Lacaille ... .. | 7·0 | 2 | 10 | 57 | 48·85 | 129 | 34 | 33·1 | 2 | 0·27 |
| 523 | 63 Leonis χ . .. | 5·0 | | 10 | 58 | 0·08 | 81 | 55 | 46·5 | 11 | 0·25 |
| 524 | ... ... ... .. | 9·2 | 1 | 10 | 58 | 11·95 | 140 | 59 | 14·9 | 1 | 0·32 |
| 525 | 65 Leonis $p^3$ ... ... | 8·5 | ... | 10 | 59 | 57·96 | 87 | 15 | 29·9 | 1 | 0·30 |

505.—η Argûs Var. 1.—Irregularly variable from 1st to 9th magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. Annual Precession. | Secular Variation. | Proper Motion. | In Polar Distance. Annual Precession. | Secular Variation. | Proper Motion. | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | s | s | s | " | " | " | |
| 491 | 43 Leonis ... ... | + 3·1465 | − 0·0068 | − 0·001 | + 18·021 | + 0·194 | + 0·09 | 3544 |
| 492 | ... ... .. | + 3·2245 | − 0·0110 | ... | + 18·030 | + 0·198 | ... | ... |
| 493 | . ... .. | + 2·5937 | + 0·0121 | ... | + 18·033 | + 0·158 | ... | .. |
| 494 | 4653 Taylor ... .. | + 2·0173 | + 0·0129 | ... | + 18·103 | + 0·119 | ... | ... |
| 495 | 45 Leonis ... .. | + 3·1759 | − 0·0084 | − 0·002 | + 18·193 | + 0·187 | + 0·01 | 3575 |
| 496 | ... .. . | + 2·2182 | + 0·0160 | ... | + 18·247 | + 0·126 | ... | ... |
| 497 | 30 Sextantis ... .. | + 3·0726 | − 0·0030 | − 0·004 | + 18·297 | + 0·175 | + 0·03 | 3597 |
| 498 | .. ... .. | + 3·2076 | − 0·0102 | ... | + 18·298 | + 0·183 | ... | ... |
| 499 | 47 Leonis ρ ... ... | + 3·1664 | − 0·0080 | 0·000 | + 18·380 | + 0·176 | + 0·03 | 3600 |
| 500 | .. ... .. | + 2·2498 | + 0·0181 | ... | + 18·502 | + 0·119 | ... | ... |
| 501 | ... ... . | + 2·5083 | + 0·0182 | ... | + 18·687 | + 0·125 | ... | ... |
| 502 | ... ... ... | + 2·5486 | + 0·0177 | ... | + 18·703 | + 0·126 | ... | ... |
| 503 | 36 Sextantis ... .. | + 3·0982 | − 0·0040 | − 0·006 | + 18·789 | + 0·150 | + 0·01 | 3684 |
| 504 | ... ... .. | + 2·4134 | + 0·0207 | ... | + 18·809 | + 0·114 | ... | ... |
| 505 | η Argûs Var. 1 ... | + 2·3100 | + 0·0215 | − 0·003 | + 18·839 | + 0·107 | + 0·01 | 3695 |
| 506 | ... ... .. | + 2·3959 | + 0·0218 | ... | + 18·888 | + 0·109 | ... | ... |
| 507 | 53 Leonis l .. ... | + 3·1608 | − 0·0080 | − 0·003 | + 18·908 | + 0·145 | + 0·02 | 3708 |
| 508 | 4886 Taylor ... .. | + 2·3976 | + 0·0190 | ... | + 18·928 | + 0·117 | ... | .. |
| 509 | ... ... .. | + 2·5274 | + 0·0213 | ... | + 18·993 | + 0·110 | ... | ... |
| 510 | ... ... ... | + 2·5359 | + 0·0215 | ... | + 19·020 | + 0·109 | ... | ... |
| 511 | ... ... .. | + 2·3526 | + 0·0246 | ... | + 19·071 | + 0·098 | ... | ... |
| 512 | .. ... .. | + 2·7316 | + 0·0164 | ... | + 19·073 | + 0·115 | ... | ... |
| 513 | ... ... .. | + 2·5104 | + 0·0238 | ... | + 19·134 | + 0·102 | ... | ... |
| 514 | 4955 Taylor ... .. | + 2·4510 | + 0·0250 | ... | + 19·145 | + 0·097 | ... | . |
| 515 | ... ... .. | + 2·5443 | + 0·0239 | ... | + 19·187 | + 0·100 | ... | ... |
| 516 | ... ... .. | + 2·6194 | + 0·0222 | ... | + 19·201 | + 0·102 | ... | ... |
| 517 | 59 Leonis c ... .. | + 3·1178 | − 0·0052 | − 0·005 | + 19·221 | + 0·122 | + 0·06 | 3769 |
| 518 | 61 Leonis p¹ ... .. | + 3·0906 | − 0·0007 | 0·000 | + 19·251 | + 0·117 | + 0·04 | 3775 |
| 519 | 50 Ursæ Majoris α ... | + 3·7869 | − 0·0821 | − 0·017 | + 19·261 | + 0·144 | + 0·09 | 3777 |
| 520 | ... ... .. | + 2·5431 | + 0·0262 | ... | + 19·302 | + 0·098 | ... | ... |
| 521 | ... ... .. | + 2·5424 | + 0·0263 | ... | + 19·303 | + 0·092 | ... | ... |
| 522 | 4576 Lacaille . ... | + 2·7758 | + 0·0179 | ... | + 19·321 | + 0·100 | ... | ... |
| 523 | 63 Leonis χ ... .. | + 3·1226 | − 0·0056 | − 0·024 | + 19·326 | + 0·113 | + 0·06 | 3788 |
| 524 | ... ... .. | + 2·6324 | + 0·0242 | ... | + 19·330 | + 0·094 | .. | — |
| 525 | 65 Leonis p² ... .. | + 3·0883 | − 0·0028 | − 0·028 | + 19·374 | + 0·109 | + 0·06 | 3798 |

491.—495.—497.—525.—Proper Motions adopted from " *Greenwich Catalogues.*"
505.—Proper Motions from Mr. Stone's list, " *Mem. R. A. S.*" Vol. 42.
518.—Proper Motions from Mr. Stone's list, " *Mem. R. A. S.*" Vol. 33

*Mean Positions of Stars for 1864 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 526 | ... ... ... ... | 9·7 | 1 | 11 | 0 | 36·53 | 147 | 13 | 43·7 | 1 | 0·33 |
| 527 | 21367 Lalande ... ... | 8·0 | 1 | 11 | 3 | 18·75 | 78 | 5 | 47·8 | 1 | 0·37 |
| 528 | ... ... ... ... | 8·2 | 1 | 11 | 4 | 20·19 | 105 | 14 | 31·1 | 1 | 0·37 |
| 529 | 5092 Taylor ... ... | 8·8 | 1 | 11 | 5 | 18·86 | 143 | 49 | 7·7 | 1 | 0·33 |
| 530 | ... ... ... ... | 9·9 | 2 | 11 | 5 | 41·10 | 83 | 50 | 24·8 | 2 | 0·22 |
| 531 | 69 Leonis $p^5$ ... .. | 5·5 | ... | 11 | 6 | 47·83 | 89 | 19 | 48·4 | 1 | 0·14 |
| 532 | 68 Leonis δ ... ... | 2·5 | ... | 11 | 6 | 52·28 | 68 | 43 | 55·2 | 10 | 0·25 |
| 533 | ... ... ... ... | 8·2 | 1 | 11 | 7 | 7·12 | 145 | 40 | 14·6 | 1 | 0·33 |
| 534 | ... ... ... ... | 8·0 | 1 | 11 | 8 | 34·11 | 150 | 50 | 49·2 | 1 | 0·36 |
| 535 | ... ... ... ... | 9·8 | 1 | 11 | 9 | 28·70 | 145 | 55 | 13·9 | 1 | 0·34 |
| 536 | 74 Leonis φ ... ... | 4·7 | ... | 11 | 9 | 44·90 | 92 | 54 | 32·0 | 4 | 0·20 |
| 537 | ... ... ... .. | 9·8 | 1 | 11 | 10 | 31·90 | 141 | 8 | 35·7 | 1 | 0·32 |
| 538 | ... ... ... ... | 9·0 | 1 | 11 | 11 | 8·16 | 127 | 38 | 22·5 | 1 | 0·32 |
| 539 | 12 Crateris δ ... . | 3·3 | ... | 11 | 12 | 32·57 | 104 | 2 | 31·6 | 8 | 0·26 |
| 540 | ... ... ... ... | 7·9 | 3 | 11 | 12 | 48·58 | 129 | 32 | 6·8 | 3 | 0·35 |
| 541 | 4726 Lacaille ... ... | 7·6 | 2 | 11 | 16 | 5·21 | 145 | 51 | 29·0 | 2 | 0·33 |
| 542 | 5220 Taylor ... ... | 8·1 | 3 | 11 | 19 | 0·51 | 131 | 55 | 30·8 | 3 | 0·34 |
| 543 | ... ... ... ... | 8·6 | 1 | 11 | 19 | 24·96 | 129 | 30 | 57·8 | 1 | 0·32 |
| 544 | ... ... ... ... | 9·5 | 1 | 11 | 21 | 41·86 | 128 | 22 | 47·4 | 1 | 0·24 |
| 545 | ... ... ... ... | 8·1 | 4 | 11 | 22 | 7·66 | 129 | 4 | 15·7 | 4 | 0·30 |
| 546 | ... ... ... ... | 9·0 | 1 | 11 | 22 | 48·14 | 145 | 53 | 41·9 | 1 | 0·32 |
| 547 | ... ... ... ... | 9·0 | 1 | 11 | 23 | 11·85 | 142 | 52 | 33·9 | 1 | 0·32 |
| 548 | 87 Leonis ε ... ... | 5·5 | ... | 11 | 23 | 21·88 | 92 | 15 | 13·9 | 1 | 0·37 |
| 549 | ... ... ... ... | 9·1 | 2 | 11 | 24 | 35·16 | 146 | 8 | 57·4 | 2 | 0·34 |
| 550 | ... ... ... ... | 9·1 | 2 | 11 | 26 | 15·02 | 143 | 51 | 15·2 | 2 | 0·33 |
| 551 | ... ... ... ... | 10·2 | 1 | 11 | 26 | 39·88 | 23 | 17 | 32·2 | 1 | 0·32 |
| 552 | ... ... ... .. | 8·5 | 1 | 11 | 29 | 50·97 | 149 | 15 | 40·3 | 1 | 0·32 |
| 553 | 91 Leonis υ ... ... | 4·7 | ... | 11 | 29 | 59·13 | 90 | 4 | 24·3 | 13 | 0·27 |
| 554 | ... ... ... ... | 9·2 | 1 | 11 | 32 | 9·19 | 144 | 14 | 32·4 | 1 | 0·32 |
| 555 | ... ... ... ... | 8·8 | 1 | 11 | 33 | 57·32 | 127 | 49 | 16·1 | 1 | 0·33 |
| 556 | ... ... ... ... | 8·8 | 1 | 11 | 34 | 20·24 | 144 | 20 | 39·4 | 1 | 0·35 |
| 557 | ... ... ... ... | 9·0 | 1 | 11 | 36 | 3·21 | 130 | 40 | 16·5 | 1 | 0·33 |
| 558 | 5384 Taylor ... ... | 6·0 | 2 | 11 | 37 | 2·85 | 151 | 41 | 7·3 | 2 | 0·35 |
| 559 | ... ... ... ... | 8·0 | 1 | 11 | 38 | 0·35 | 149 | 28 | 49·4 | 1 | 0·34 |
| 560 | ... ... .. ... | 9·8 | 1 | 11 | 38 | 42·13 | 129 | 31 | 6·1 | 1 | 0·32 |

551.—Comparison star for Comet 2, 1861.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 526 | ... ... ... | + 2·5398 | + 0·0282 | ... | + 19·385 | + 0·087 | ... | ... |
| 527 | 21367 Lalande ... | + 3·1411 | − 0·0075 | ... | + 19·445 | + 0·104 | ... | ... |
| 528 | ... ... ... | + 2·5097 | + 0·0313 | ... | + 19·466 | + 0·080 | ... | ... |
| 529 | 5092 Taylor ... ... | + 2·6400 | + 0·0276 | ... | + 19·487 | + 0·083 | ... | ... |
| 530 | ... ... ... | + 3·1059 | − 0·0043 | ... | + 19·494 | + 0·098 | ... | ... |
| 531 | 69 Leonis p[1] ... ... | + 3·0757 | − 0·0013 | 0·000 | + 19·517 | + 0·095 | 0·00 | 3832 |
| 532 | 68 Leonis δ ... ... | + 3·1916 | − 0·0132 | + 0·011 | + 19·519 | + 0·098 | + 0·14 | 3834 |
| 533 | ... ... ... | + 2·6243 | + 0·0294 | ... | + 19·524 | + 0·079 | ... | ... |
| 534 | ... ... ... | + 2·5387 | + 0·0441 | ... | + 19·552 | + 0·074 | ... | ... |
| 535 | ... ... ... | + 2·6400 | + 0·0304 | ... | + 19·570 | + 0·076 | ... | ... |
| 536 | 74 Leonis φ ... ... | + 3·0573 | + 0·0006 | − 0·009 | + 19·575 | + 0·059 | + 0·04 | 3849 |
| 537 | ... ... ... | + 2·7167 | + 0·0273 | ... | + 19·590 | + 0·077 | ... | ... |
| 538 | ... ... ... | + 2·8539 | + 0·0186 | ... | + 19·601 | + 0·080 | ... | ... |
| 539 | 12 Crateris δ ... | + 3·0032 | + 0·0064 | − 0·009 | + 19·627 | + 0·061 | − 0·18 | 3859 |
| 540 | ... ... ... | + 2·8465 | + 0·0200 | ... | + 19·631 | + 0·077 | ... | ... |
| 541 | 4726 Lacaille ... | + 2·6966 | + 0·0324 | ... | + 19·688 | + 0·067 | ... | ... |
| 542 | 5220 Taylor ... ... | + 2·8585 | + 0·0225 | ... | + 19·735 | + 0·066 | ... | ... |
| 543 | ... ... ... | + 2·8775 | + 0·0209 | ... | + 19·741 | + 0·065 | ... | ... |
| 544 | ... ... ... | + 2·8959 | + 0·0206 | ... | + 19·776 | + 0·061 | ... | ... |
| 545 | ... ... ... | + 2·8935 | + 0·0209 | ... | + 19·781 | + 0·060 | ... | ... |
| 546 | ... ... ... | + 2·7530 | + 0·0344 | ... | + 19·791 | + 0·056 | ... | ... |
| 547 | ... ... ... | + 2·7596 | + 0·0318 | ... | + 19·797 | + 0·056 | ... | ... |
| 548 | 87 Leonis e ... ... | + 3·0637 | + 0·0011 | − 0·001 | + 19·799 | + 0·062 | + 0·03 | 3916 |
| 549 | ... ... ... | + 2·7052 | + 0·0352 | ... | + 19·816 | + 0·053 | ... | ... |
| 550 | ... ... ... | + 2·8035 | + 0·0335 | ... | + 19·838 | + 0·051 | ... | ... |
| 551 | ... ... ... | + 3·5222 | − 0·0880 | ... | + 19·843 | + 0·065 | ... | ... |
| 552 | ... ... ... | + 2·7772 | + 0·0406 | ... | + 19·881 | + 0·044 | ... | ... |
| 553 | 91 Leonis υ ... ... | + 3·0718 | + 0·0003 | − 0·008 | + 19·881 | + 0·049 | − 0·03 | 3946 |
| 554 | ... ... ... | + 2·8471 | + 0·0356 | ... | + 19·907 | + 0·041 | ... | ... |
| 555 | ... ... ... | + 2·9544 | + 0·0219 | ... | + 19·925 | + 0·040 | ... | ... |
| 556 | ... ... ... | + 2·8638 | + 0·0364 | ... | + 19·929 | + 0·037 | ... | ... |
| 557 | ... ... ... | + 2·9078 | + 0·0320 | ... | + 19·945 | + 0·036 | ... | ... |
| 558 | 5384 Taylor ... ... | + 2·8235 | + 0·0170 | ... | + 19·954 | + 0·032 | ... | 3976 |
| 559 | ... ... ... | + 2·8548 | + 0·0444 | ... | + 19·964 | + 0·030 | ... | ... |
| 560 | ... ... ... | + 2·9626 | + 0·0237 | ... | + 19·969 | + 0·031 | ... | ... |

*Mean Positions of Stars for 1864 January 1st.*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 561 | ... ... .. ... | 7·9 | 1 | 11 | 40 | 56·86 | 140 | 52 | 2·4 | 1 | 0·38 |
| 562 | ... ... ... ... | 8·7 | 1 | 11 | 41 | 9·03 | 126 | 30 | 25·6 | 1 | 0·26 |
| 563 | ... ... ... .. | 8·2 | 2 | 11 | 41 | 12·36 | 129 | 32 | 6·3 | 2 | 0·29 |
| 564 | 94 Leonis β (*Deneb*) .. | 2·0 | ... | 11 | 42 | 7·21 | 70 | 40 | 5·0 | 11 | 0·30 |
| 565 | ... ... ... ... | 8·5 | 2 | 11 | 43 | 8·28 | 143 | 45 | 15·7 | 2 | 0·35 |
| 566 | 5 Virginis β ... ... | 3·5 | ... | 11 | 43 | 36·67 | 87 | 28 | 8·6 | 4 | 0·22 |
| 567 | 5427 Taylor ... ... | 6·0 | 1 | 11 | 44 | 5·15 | 94 | 34 | 38·6 | 1 | 0·38 |
| 568 | ... ... ... ... | 8·7 | 1 | 11 | 44 | 44·16 | 129 | 2 | 40·7 | 1 | 0·33 |
| 569 | 5433 Taylor ... ... | 7·7 | 1 | 11 | 44 | 51·57 | 129 | 33 | 3·0 | 1 | 0·32 |
| 570 | ... ... ... ... | 9·3 | 1 | 11 | 45 | 51·40 | 142 | 31 | 0·6 | 1 | 0·31 |
| 571 | 64 Ursæ Majoris γ ... | 2·3 | .. | 11 | 46 | 39·67 | 35 | 32 | 56·9 | 1 | 0·30 |
| 572 | ... ... ... ... | 8·7 | 2 | 11 | 49 | 56·06 | 128 | 5 | 29·6 | 2 | 0·28 |
| 573 | ... ... ... ... | 8·4 | 1 | 11 | 51 | 23·65 | 128 | 52 | 34·2 | 1 | 0·26 |
| 574 | ... .. ... ... | 9·3 | 1 | 11 | 51 | 36·57 | 144 | 12 | 54·1 | 1 | 0·32 |
| 575 | ... ... ... ... | 8·0 | .. | 11 | 52 | 20·94 | 154 | 32 | 32·2 | 1 | 0·36 |
| 576 | ... ... ... ... | 9·7 | 2 | 11 | 53 | 50·17 | 129 | 35 | 50·1 | 2 | 0·35 |
| 577 | ... ... ... ... | 9·0 | 3 | 11 | 56 | 23·61 | 128 | 29 | 55·8 | 3 | 0·28 |
| 578 | 5534 Taylor ... ... | 8·0 | 1 | 11 | 56 | 49·55 | 143 | 57 | 19·9 | 1 | 0·33 |
| 579 | 4995 Lacaille .. ... | 7·8 | 1 | 11 | 56 | 54·06 | 142 | 44 | 26·8 | 1 | 0·32 |
| 580 | 5535 Taylor ... ... | 7·9 | 2 | 11 | 57 | 3·47 | 70 | 25 | 29·7 | 2 | 0·29 |
| 581 | 89 R. P. L. ... ... | 6·3 | ... | 11 | 57 | 51·22 | 3 | 39 | 33·6 | 3 | 0·49 |
| 582 | ... ... ... . | 8·2 | 2 | 11 | 59 | 1·22 | 128 | 27 | 45·4 | 2 | 0·24 |
| 583 | ... ... ... ... | 8·5 | 2 | 11 | 59 | 44·33 | 144 | 16 | 11·2 | 2 | 0·35 |
| 584 | ... ... ... ... | 9·0 | 1 | 12 | 1 | 37·16 | 130 | 1 | 34·8 | 1 | 0·34 |
| 585 | 5041 Lacaille .. ... | 7·9 | 1 | 12 | 2 | 32·88 | 141 | 23 | 14·3 | 1 | 0·29 |
| 586 | ... ... ... ... | 9·0 | 1 | 12 | 2 | 37·25 | 141 | 5 | 30·5 | 1 | 0·34 |
| 587 | 10 Virginis ... ... | 6·0 | ... | 12 | 2 | 43·10 | 87 | 20 | 18·4 | 1 | 0·30 |
| 588 | 2 Corvi ε ... ... ... | 3·0 | ... | 12 | 3 | 8·08 | 111 | 51 | 47·5 | 8 | 0·33 |
| 589 | ... ... ... ... | 9·9 | 1 | 12 | 6 | 3·08 | 130 | 11 | 7·8 | 1 | 0·34 |
| 590 | ... ... ... ... | 8·2 | 1 | 12 | 6 | 12·47 | 138 | 27 | 32·0 | 1 | 0·27 |
| 591 | 5613 Taylor ... ... | 8·0 | 1 | 12 | 7 | 55·44 | 130 | 22 | 49·0 | 1 | 0·33 |
| 592 | 69 Ursæ Majoris δ ... | 3·5 | ... | 12 | 8 | 40·98 | 32 | 12 | 42·4 | 2 | 0·37 |
| 593 | .. ... ... .. | 8·8 | 1 | 12 | 8 | 50·14 | 144 | 20 | 13·0 | 1 | 0·33 |
| 594 | 13 Virginis . ... | 6·3 | ... | 12 | 11 | 42·07 | 90 | 1 | 51·3 | 2 | 0·22 |
| 595 | 5618 Taylor .. ... | 6·9 | 3 | 12 | 12 | 31·20 | 152 | 5 | 57·5 | 3 | 0·34 |

581.—1850 Groombridge.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 561 | ... ... .. | + 2·8808 | + 0·0458 | ... | + 19·986 | + 0·026 | ... | ... |
| 562 | ... ... ... | + 2·9908 | + 0·0218 | ... | + 19·987 | + 0·027 | . | ... |
| 563 | ... ... .. | + 2·9817 | + 0·0240 | ... | + 19·988 | + 0·027 | ... | ... |
| 564 | 94 Leonis β (Deneb). | + 3·1006 | − 0·0074 | − 0·036 | + 19·994 | + 0·025 | + 0·10 | 3995 |
| 565 | ... ... ... | + 2·9379 | + 0·0382 | ... | + 20·001 | + 0·022 | ... | ... |
| 566 | 5 Virginis β ... .. | + 3·0763 | − 0·0003 | + 0·048 | + 20·004 | + 0·023 | + 0·28 | 4002 |
| 567 | 5427 Taylor ... .. | + 3·0647 | + 0·0031 | ... | + 20·007 | + 0·022 | ... | 4003 |
| 568 | ... ... .. | + 3·0000 | + 0·0241 | ... | + 20·011 | + 0·020 | ... | ... |
| 569 | 5433 Taylor ... .. | + 2·9992 | + 0·0246 | ... | + 20·012 | + 0·020 | ... | ... |
| 570 | ... ... .. | + 2·9646 | + 0·0373 | ... | + 20·017 | + 0·017 | .. | ... |
| 571 | 64 Ursæ Majoris γ .. | + 3·1808 | − 0·0433 | + 0·011 | + 20·022 | + 0·017 | 0·00 | 4017 |
| 572 | ... ... ... | + 3·0261 | + 0·0241 | ... | + 20·036 | + 0·010 | ... | ... |
| 573 | ... ... .. | + 3·0317 | + 0·0249 | ... | + 20·041 | + 0·007 | ... | ... |
| 574 | ... ... .. | + 3·0042 | + 0·0410 | ... | + 20·042 | + 0·007 | ... | .. |
| 575 | ... ... .. | + 2·9783 | + 0·0604 | ... | + 20·044 | + 0·005 | ... | ... |
| 576 | ... ... ... | + 3·0423 | + 0·0258 | ... | + 20·048 | + 0·003 | ... | ... |
| 577 | ... ... ... | + 3·0553 | + 0·0253 | ... | + 20·053 | − 0·002 | .. | ... |
| 578 | 5534 Taylor ... ... | + 3·0467 | + 0·0421 | ... | + 20·053 | − 0·003 | ... | .. |
| 579 | 4995 Lacaille .. | + 3·0183 | + 0·0404 | ... | + 20·053 | − 0·003 | ... | ... |
| 580 | 5535 Taylor ... .. | + 3·0782 | − 0·0089 | ... | + 20·054 | − 0·003 | ... | .. |
| 581 | 89 R. P. L. ... .. | + 3·2674 | − 0·5247 | ... | + 20·054 | − 0·005 | ... | 4070 |
| 582 | ... .. .. | + 3·0375 | + 0·0255 | ... | + 20·055 | − 0·007 | .. | .. |
| 583 | ... ... .. | + 3·0699 | + 0·0434 | ... | + 20·055 | − 0·009 | ... | ... |
| 584 | .. ... ... | + 3·0800 | + 0·0273 | ... | + 20·054 | − 0·012 | ... | .. |
| 585 | 5011 Lacaille . | + 3·0907 | + 0·0400 | .. | + 20·054 | − 0·014 | .. | .. |
| 586 | ... ... .. | + 3·0910 | + 0·0396 | ... | + 20·054 | − 0·015 | ... | ... |
| 587 | 10 Virginis ... .. | + 3·0714 | + 0·0007 | − 0·001 | + 20·054 | − 0·013 | + 0·21 | 4094 |
| 588 | 2 Corvi ε .. ... | + 3·0793 | + 0·0142 | − 0·006 | + 20·054 | − 0·016 | − 0·01 | 4097 |
| 589 | ... ... .. | + 3·1019 | + 0·0280 | ... | + 20·048 | − 0·021 | .. | .. |
| 590 | ... ... .. | + 3·1129 | + 0·0369 | ... | + 20·048 | − 0·022 | ... | ... |
| 591 | 5613 Taylor ... .. | + 3·1114 | + 0·0284 | .. | + 20·043 | − 0·025 | ... | ... |
| 592 | 69 Ursæ Majoris δ .. | + 2·9917 | − 0·0425 | + 0·015 | + 20·040 | − 0·026 | + 0·04 | 4123 |
| 593 | .. ... .. | + 3·1439 | + 0·0460 | ... | + 20·040 | − 0·027 | ... | ... |
| 594 | 13 Virginis .. .. | + 3·0721 | + 0·0026 | 0·000 | + 20·029 | − 0·032 | + 0·04 | 4137 |
| 595 | 5648 Taylor ... .. | + 3·2100 | + 0·0640 | .. | + 20·024 | − 0·035 | ... | .. |

72

*Mean Positions of Stars for 1864 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 596 | 15 Virginis η ... .. | 3·7 | ... | 12 | 12 | 56·91 | 89 | 54 | 38·9 | 6 | 0·32 |
| 597 | ... ... ... ... | 9·5 | 1 | 12 | 14 | 3·66 | 143 | 44 | 49·8 | 1 | 0·34 |
| 598 | 5119 Lacaille ... ... | 8·4 | 1 | 12 | 15 | 21·68 | 138 | 34 | 15·4 | 1 | 0·27 |
| 599 | ... ... ... ... | 8·0 | 1 | 12 | 16 | 46·01 | 147 | 9 | 46·4 | 1 | 0·37 |
| 600 | ... ... ... ... | 8·7 | 2 | 12 | 17 | 24·22 | 24 | 43 | 7·3 | 2 | 0·24 |
| 601 | ... ... ... ... | 9·8 | 1 | 12 | 18 | 39·10 | 143 | 30 | 8·0 | 1 | 0·34 |
| 602 | ... ... .. ... | 9·5 | ... | 12 | 19 | 0·47 | 129 | 43 | 47·8 | 1 | 0·32 |
| 603 | α Crucis (1st) ... ... | 2·3 | ... | 12 | 19 | 3·52 | 152 | 20 | 42·4 | 2 | 0·34 |
| 604 | ... ... .. ... | 8·0 | 2 | 12 | 21 | 6·84 | 145 | 42 | 19·0 | 2 | 0·37 |
| 605 | ... ... ... ... | 8·3 | 2 | 12 | 24 | 38·58 | 150 | 58 | 38·9 | 2 | 0·32 |
| 606 | ... ... ... ... | 7·5 | 1 | 12 | 25 | 56·04 | 28 | 2 | 1·0 | 1 | 0·33 |
| 607 | 21 Virginis *q* ... ... | 6·0 | 2 | 12 | 26 | 45·81 | 98 | 42 | 5·4 | 5 | 0·27 |
| 608 | ... ... ... ... | 8·0 | 1 | 12 | 27 | 4·41 | 38 | 0 | 26·8 | 1 | 0·37 |
| 609 | 9 Corvi β ... ... ... | 2·3 | ... | 12 | 27 | 14·86 | 112 | 38 | 38·9 | 4 | 0·34 |
| 610 | ... ... ... ... | 9·2 | 1 | 12 | 27 | 49·34 | 140 | 55 | 32·3 | 1 | 0·34 |
| 611 | T Ursæ Majoris Var. 3 ... | 8·3 | 3 | 12 | 30 | 11·19 | 29 | 45 | 49·5 | 3 | 0·32 |
| 612 | ... ... ... ... | 9·2 | 1 | 12 | 30 | 50·84 | 142 | 19 | 41·5 | 1 | 0·39 |
| 613 | R Virginis Var. 2 ... ... | 7·3 | 4 | 12 | 31 | 35·85 | 82 | 15 | 47·4 | 4 | 0·36 |
| 614 | ... ... ... ... | 9·8 | 2 | 12 | 32 | 8·58 | 29 | 14 | 20·1 | 2 | 0·33 |
| 615 | 26 Virginis χ ... ... | 6·0 | 1 | 12 | 32 | 13·76 | 97 | 14 | 48·0 | 4 | 0·28 |
| 616 | ... ... ... ... | 7·0 | 1 | 12 | 32 | 51·66 | 28 | 13 | 23·1 | 1 | 0·32 |
| 617 | 5830 Taylor ... ... | 7·5 | 1 | 12 | 34 | 26·89 | 144 | 0 | 51·4 | 1 | 0·36 |
| 618 | XII 592 W. B. E.... ... | 8·0 | 3 | 12 | 36 | 1·30 | 93 | 17 | 48·6 | 3 | 0·29 |
| 619 | S Ursæ Majoris Var 2 .. | 9·7 | 2 | 12 | 37 | 58·32 | 28 | 9 | 42·2 | 2 | 0·32 |
| 620 | ... ... ... ... | 9·6 | 3 | 12 | 39 | 36·25 | 94 | 1 | 53·6 | 3 | 0·26 |
| 621 | ... .. ... | 7·9 | 1 | 12 | 40 | 49·04 | 141 | 52 | 54·0 | 1 | 0·37 |
| 622 | .. ... .. ... | 8·0 | 1 | 12 | 41 | 40·06 | 141 | 49 | 33·0 | 1 | 0·35 |
| 623 | . ... ... .. | 9·2 | 1 | 12 | 42 | 3·34 | 147 | 16 | 27·3 | 1 | 0·38 |
| 624 | ... .. .. ... | 8·7 | 1 | 12 | 42 | 47·38 | 142 | 51 | 56·9 | 1 | 0·36 |
| 625 | .. ... ... ... | 9·3 | 1 | 12 | 42 | 51·08 | 139 | 25 | 15·5 | 1 | 0·40 |
| 626 | . ... ... .. | 8·3 | 1 | 12 | 43 | 17·33 | 129 | 7 | 50·7 | 1 | 0·36 |
| 627 | ... . ... . | 8·9 | 4 | 12 | 43 | 26·08 | 83 | 19 | 14·6 | 4 | 0·36 |
| 628 | U Virginis Var. 3 .. | 9·3 | 3 | 12 | 44 | 11·78 | 83 | 42 | 20·5 | 3 | 0·34 |
| 629 | 2922 Radcliffe ... .. | 6·2 | 1 | 12 | 45 | 6·74 | 26 | 16 | 27·1 | 1 | 0·38 |
| 630 | ... ... .. .. | 9·7 | 3 | 12 | 45 | 10·12 | 83 | 19 | 6·9 | 3 | 0·35 |

600.—629.—Comparison stars for Comet 2·1861.
611.—T Ursæ Majoris Var. 3.—Period 255 days.—Range, 7th to 12th magnitude.
613.—R Virginis Var. 2.—Period 146 days.—Range, 6·5 to 11th magnitude.
618.—620.—Comparison stars for Hestia in 1864.
619.—S Ursæ Majoris Var. 2.—Period 225 days.—Range, 7th to 12th magnitude.
628.—U Virginis Var. 3.—Period 207 days.—Range, 8th to 13 magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | | |
| 596 | 15 Virginis η .. ... | + 3·0719 | + 0·0027 | − 0·007 | + 20·023 | − 0·035 | + 0·03 | 4145 |
| 597 | .. ... . | + 3·1838 | + 0·0464 | ... | + 20·018 | − 0·038 | ... | .. |
| 598 | 5119 Lacaille .. | + 3·1736 | + 0·0388 | ... | + 20·010 | − 0·040 | ... | .. |
| 599 | ... ... .. | + 3·2234 | + 0·0535 | .. | + 20·001 | − 0·044 | ... | — |
| 600 | .. .. .. | + 2·8517 | − 0·0523 | ... | + 19·997 | − 0·041 | ... | ... |
| 601 | ... . | + 3·2190 | + 0·0461 | .. | + 19·989 | − 0·047 | ... | — |
| 602 | . ... .. | + 3·1641 | + 0·0292 | .. | + 19·986 | − 0·047 | ... | — |
| 603 | α Crucis (1st) .. | + 3·2837 | + 0·0680 | − 0·006 | + 19·986 | − 0·050 | + 0·04 | 4187 |
| 604 | ... .. .. | + 3·2524 | + 0·0518 | ... | + 19·970 | − 0·053 | ... | — |
| 605 | | + 3·3307 | + 0·0658 | — | + 19·940 | − 0·061 | .. | — |
| 606 | .. ... .. | + 2·7885 | − 0·0420 | ... | + 19·927 | − 0·055 | .. | |
| 607 | 21 Virginis q ... | + 3·0960 | + 0·0080 | − 0·009 | + 19·918 | − 0·062 | 0·00 | 4230 |
| 608 | .. ... . | + 2·8705 | − 0·0294 | ... | + 19·916 | − 0·058 | ... | — |
| 609 | 9 Corvi β ... .. | + 3·1381 | + 0·0164 | − 0·008 | + 19·914 | − 0·064 | + 0·07 | 4234 |
| 610 | ... ... ... | + 3·2715 | + 0·0447 | ... | + 19·907 | − 0·067 | ... | ... |
| 611 | T Ursæ Majoris Var. 3 | + 2·7630 | + 0·0377 | ... | + 19·881 | − 0·062 | ... | — |
| 612 | ... ... .. | + 3·3043 | + 0·0476 | ... | + 19·873 | − 0·074 | ... | . |
| 613 | R Virginis Var. 2 ... | + 3·0471 | − 0·0003 | ... | + 19·865 | − 0·070 | ... | — |
| 614 | ... .. ... | + 2·7382 | − 0·0376 | ... | + 19·858 | − 0·065 | .. | ... |
| 615 | 26 Virginis χ ... | + 3·0959 | + 0·0075 | − 0·006 | + 19·857 | − 0·072 | + 0·04 | 4257 |
| 616 | ... .. .. | + 2·7161 | − 0·0384 | ... | + 19·850 | − 0·068 | ... | — |
| 617 | 5830 Taylor ... .. | + 3·3478 | + 0·0518 | ... | + 19·829 | − 0·082 | .. | 4266 |
| 618 | XII 592 W. B. E .. | + 3·0841 | + 0·0056 | . | + 19·808 | − 0·080 | ... | — |
| 619 | S Ursæ Majoris Var. 2. | + 2·6602 | − 0·0360 | ... | + 19·781 | − 0·073 | .. | .. |
| 620 | ... .. .. | + 3·0883 | + 0·0062 | ... | + 19·736 | − 0·086 | — | — |
| 621 | .. . | + 3·3740 | + 0·0490 | . | + 19·738 | − 0·096 | — | — |
| 622 | ... ... . | + 3·3795 | + 0·0490 | .. | + 19·725 | − 0·097 | ... | — |
| 623 | .. .. .. | + 3·4517 | + 0·0611 | — | + 19·718 | − 0·100 | .. | — |
| 624 | ... ... | + 3·3998 | + 0·0612 | ... | + 19·706 | − 0·100 | — | — |
| 625 | .. ... ... | + 3·3622 | + 0·0449 | ... | + 19·705 | − 0·099 | — | — |
| 626 | .. ... . | + 3·2763 | + 0·0313 | .. | + 19·699 | − 0·098 | — | — |
| 627 | ... ... . | + 3·0426 | + 0·0009 | . | + 19·691 | − 0·090 | — | — |
| 628 | U Virginis Var. 3 .. | + 3·0438 | + 0·0012 | ... | + 19·683 | − 0·093 | — | — |
| 629 | 2922 Radcliffe | + 2·5424 | − 0·0344 | .. | + 19·668 | − 0·080 | — | — |
| 630 | .. ... | + 3·0414 | + 0·0010 | .. | + 19·667 | − 0·095 | — | — |

603.—Proper Motions adopted from "*Stone's Catalogue.*"
615.—Proper Motions from Mr Stone's list "*Mem. R. A. S.*" Vol. 33.

*Mean Positions of Stars for 1864 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | *h.* | *m.* | *s.* | ° | ′ | ″ | | |
| 631 | 40 Virginis ψ ... ... | 5·3 | ... | 12 | 47 | 16·98 | 98 | 47 | 58·3 | 2 | 0·30 |
| 632 | 99 R. P. L. ... ... | 5·6 | ... | 12 | 48 | 9·91 | 5 | 50 | 52·8 | 1 | 0·38 |
| 633 | ... ... ... ... | 7·8 | 1 | 12 | 49 | 23·85 | 145 | 34 | 11·3 | 1 | 0·37 |
| 634 | 12 Canum Venaticorum ... | 3·0 | ... | 12 | 49 | 39·61 | 50 | 56 | 48·11 | 11 | 0·36 |
| 635 | 5974 Taylor ... ... | 8·7 | 1 | 12 | 51 | 54·65 | 143 | 38 | 34·3 | 1 | 0·41 |
| 636 | ... ... ... ... | 8·8 | 1 | 12 | 53 | 16·40 | 143 | 40 | 22·3 | 1 | 0·38 |
| 637 | ... ... ... ... | 9·2 | 1 | 12 | 54 | 37·89 | 130 | 18 | 22·8 | 1 | 0·39 |
| 638 | ... ... ... ... | 10·3 | 2 | 12 | 56 | 11·01 | 113 | 12 | 31·9 | 2 | 0·31 |
| 639 | 5381 Lacaille ... ... | 8·8 | 1 | 12 | 57 | 7·84 | 129 | 57 | 6·1 | 1 | 0·40 |
| 640 | ... ... ... ... | 9·1 | 2 | 12 | 58 | 6·22 | 124 | 28 | 41·6 | 2 | 0·37 |
| 641 | 50 Virginis ... ... | 6·0 | 2 | 13 | 2 | 38·28 | 99 | 36 | 11·3 | 3 | 0·33 |
| 642 | 51 Virginis θ ... ... | 4·8 | ... | 13 | 2 | 54·57 | 97 | 48 | 44·1 | 11 | 0·36 |
| 643 | ... ... ... ... | 9·0 | 1 | 13 | 4 | 32·13 | 138 | 10 | 32·3 | 1 | 0·41 |
| 644 | W Virginis Var. 1 ... | 8·4 | 3 | 13 | 6 | 54·18 | 105 | 49 | 54·7 | 4 | 0·29 |
| 645 | ... ... ... ... | 8·1 | 2 | 13 | 9 | 45·47 | 129 | 56 | 15·7 | 2 | 0·37 |
| 646 | 58 Virginis ... .. | 6·7 | ... | 13 | 10 | 19·73 | 99 | 49 | 42·7 | 1 | 0·23 |
| 647 | 101 R. P. L. ... ... | 7·5 | ... | 13 | 10 | 26·11 | 1 | 37 | 17·6 | 3 | 0·49 |
| 648 | 6129 Taylor . .. | 7·4 | 2 | 13 | 12 | 12·95 | 130 | 28 | 30·4 | 2 | 0·35 |
| 649 | ... ... ... ... | 7·8 | 1 | 13 | 12 | 53·10 | 122 | 56 | 34·2 | 1 | 0·33 |
| 650 | 5503 Lacaille ... ... | 7·8 | 1 | 13 | 14 | 8·92 | 125 | 23 | 51·4 | 2 | 0·35 |
| 651 | 13563 O. A. N. ... ... | 8·5 | 1 | 13 | 15 | 24·40 | 27 | 53 | 14·0 | 1 | 0·41 |
| 652 | ... ... ... ... | 8·8 | 1 | 13 | 15 | 47·75 | 145 | 12 | 51·0 | 1 | 0·39 |
| 653 | 67 Virginis α (*Spica*) .. | 1·0 | ... | 13 | 18 | 1·85 | 100 | 27 | 1·9 | 14 | 0·35 |
| 654 | V Virginis Var. 7 .. | 9·3 | 1 | 13 | 20 | 46·90 | 92 | 27 | 59·2 | 1 | 0·29 |
| 655 | R Hydræ Var. 1 ... ... | 5·5 | 1 | 13 | 22 | 17·30 | 112 | 34 | 38·9 | 1 | 0·37 |
| 656 | ... ... ... ... | 10·8 | 1 | 13 | 23 | 18·12 | 88 | 38 | 7·3 | 1 | 0·82 |
| 657 | 6257 Taylor ... ... | 8·5 | 1 | 13 | 25 | 36·07 | 148 | 48 | 21·6 | 1 | 0·42 |
| 658 | 76 Virginis h ... ... | 6·3 | ... | 13 | 25 | 48·49 | 99 | 27 | 47·4 | 3 | 0·35 |
| 659 | S Virginis Var. 6 .. | 7·0 | 2 | 13 | 25 | 53·98 | 96 | 20 | 41·9 | 2 | 0·34 |
| 660 | ... ... ... ... | 8·8 | 1 | 13 | 26 | 37·79 | 131 | 35 | 11·9 | 1 | 0·42 |
| 661 | 79 Virginis ζ ... ... | 4·0 | ... | 13 | 27 | 45·87 | 89 | 53 | 58·7 | 15 | 0·36 |
| 662 | ... ... ... ... | 9·3 | 2 | 13 | 36 | 31·31 | 144 | 38 | 18·5 | 2 | 0·41 |
| 663 | 6363 Taylor . ... | 8·8 | 1 | 13 | 36 | 38·28 | 147 | 33 | 27·4 | 1 | 0·40 |
| 664 | ... ... — ... | 9·6 | 2 | 13 | 37 | 30·37 | 123 | 48 | 3·4 | 2 | 0·37 |
| 665 | ... ... ... ... | 7·7 | 1 | 13 | 37 | 31·19 | 128 | 40 | 16·9 | 1 | 0·38 |

632.—1940 Groombridge.
644.—W Virginis Var. 1.—Irregularly variable from 7th to 10·5 magnitude.
647.—2006 Groombridge.
651.—Comparison star for Comet 2, 1861
654.—V Virginis Var. 7.—Period 251 days.—Range, 7th to below 13th magnitude.
655.—R Hydræ Var. 1.—Period about 15 months.—Range, 4th to 10th magnitude.
656.—Observed by mistake for Europa.
659.—S Virginis Var. 6.—Period 374 days.—Range, 6th to 12th magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 631 | 40 Virginis ψ ... | + 3·1145 | + 0·0092 | − 0·002 | + 19·630 | − 0·101 | + 0·04 | 4330 |
| 632 | 99 R. P. L. ... .. | + 0·3486 | + 0·2263 | − 0·017 | + 19·613 | − 0·018 | − 0·04 | 4343 |
| 633 | .. ... ... | + 3·4892 | + 0·0586 | ... | + 19·591 | − 0·117 | ... | ... |
| 634 | 12 Can. Venaticorum. | + 2·8388 | − 0·0152 | − 0·023 | + 19·587 | − 0·098 | − 0·03 | 4346 |
| 635 | 5974 Taylor ... .. | + 3·4799 | + 0·0546 | .. | + 19·542 | − 0·122 | ... | ... |
| 636 | ... ... . | + 3·4010 | + 0·0549 | ... | + 19·515 | − 0·124 | ... | ... |
| 637 | .. ... .. | + 3·4392 | + 0·0465 | .. | + 19·488 | − 0·127 | .. | ... |
| 638 | ... ... .. | + 3·2112 | + 0·0194 | ... | + 19·455 | − 0·122 | .. | ... |
| 639 | 5381 Lacaille .. | + 3·3484 | + 0·0335 | ... | + 19·436 | − 0·128 | .. | ... |
| 640 | .. ... .. | + 3·3023 | + 0·0278 | ... | + 19·413 | − 0·129 | ... | ... |
| 641 | 50 Virginis .. | + 3·1331 | + 0·0104 | − 0·001 | + 19·310 | − 0·131 | + 0·02 | 4397 |
| 642 | 51 Virginis θ .. | + 3·1025 | + 0·0078 | − 0·004 | + 19·305 | − 0·132 | + 0·04 | 4401 |
| 643 | ... ... .. | + 3·4873 | + 0·0459 | ... | + 19·265 | − 0·150 | ... | ... |
| 644 | W Virginis Var. 1. .. | + 3·1812 | + 0·0142 | ... | + 19·206 | − 0·142 | ... | ... |
| 645 | ... ... ... | + 3·4075 | + 0·0316 | ... | + 19·133 | − 0·157 | ... | . |
| 646 | 58 Virginis ... ... | + 3·1421 | + 0·0108 | − 0·007 | + 19·118 | − 0·147 | − 0·01 | 4442 |
| 647 | 101 R. P. L. ... .. | − 11·2142 | + 8·3584 | ... | + 19·115 | + 0·487 | ... | ... |
| 648 | 6129 Taylor ... ... | + 3·4257 | + 0·0353 | ... | + 19·067 | − 0·163 | ... | . |
| 649 | ... ... .. | + 3·3430 | + 0·0273 | ... | + 19·049 | − 0·161 | ... | ... |
| 650 | 5503 Lacaille .. | + 3·3742 | + 0·0298 | ... | + 19·014 | − 0·164 | ... | ... |
| 651 | 13563 O. A. N. .. | + 2·2557 | − 0·0189 | ... | + 18·980 | − 0·114 | ... | ... |
| 652 | .. ... . | + 3·6971 | + 0·0629 | ... | + 18·968 | − 0·183 | ... | ... |
| 653 | 67 Virginis α (*Spica*) . | + 3·1543 | + 0·0116 | − 0·005 | + 18·901 | − 0·163 | + 0·04 | 4480 |
| 654 | V Virginis Var. 7 | + 3·0919 | + 0·0073 | ... | + 18·823 | − 0·161 | ... | . |
| 655 | R Hydræ Var. 1 .. | + 3·2674 | + 0·0192 | + 0·002 | + 18·777 | − 0·176 | − 0·01 | 4501 |
| 656 | ... ... ... | + 3·0607 | + 0·0055 | ... | + 18·746 | − 0·267 | ... | ... |
| 657 | 6257 Taylor ... .. | + 3·8778 | + 0·0761 | ... | + 18·672 | − 0·215 | ... | ... |
| 658 | 76 Virginis h ... | + 3·1536 | + 0·0113 | − 0·004 | + 18·666 | − 0·176 | + 0·02 | 4521 |
| 659 | S Virginis Var. 6 .. | + 3·1278 | + 0·0096 | ... | + 18·663 | − 0·175 | ... | ... |
| 660 | ... ... .. | + 3·5099 | + 0·0379 | ... | + 18·630 | − 0·197 | ... | ... |
| 661 | 79 Virginis ζ ... . | + 3·0711 | + 0·0064 | − 0·019 | + 18·603 | − 0·176 | − 0·06 | 4532 |
| 662 | .. ... ... | + 3·8424 | + 0·0612 | ... | + 18·302 | − 0·237 | ... | ... |
| 663 | 6363 Taylor ... . | + 3·9329 | + 0·0733 | ... | + 18·298 | − 0·243 | ... | ... |
| 664 | .. ... .. | + 3·4415 | + 0·0292 | .. | + 18·267 | − 0·215 | ... | ... |
| 665 | ... .. .. | + 3·5138 | + 0·0346 | ... | + 18·267 | − 0·230 | ... | ... |

641.—646. 658.—Proper Motions from Mr. Stone's list "*Mem. R. A. S.*" Vol. 33.
655.—Proper Motions adopted from "*Greenwich Catalogue*"

*Mean Positions of Stars for 1864 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | *h.* | *m.* | *s.* | ° | ′ | ″ | | |
| 666 | ... ... ... ... | 8·6 | 2 | 13 | 38 | 13·86 | 122 | 47 | 1·2 | 2 | 0·36 |
| 667 | ... ... ... ... | 8·2 | 2 | 13 | 38 | 33·07 | 152 | 45 | 59·9 | 2 | 0·38 |
| 668 | ... ... ... ... | 9·2 | 1 | 13 | 40 | 30·30 | 129 | 24 | 0·6 | 1 | 0·34 |
| 669 | 85 Ursæ Majoris η .. | 2·3 | .. | 13 | 42 | 10·62 | 40 | 0 | 25·4 | 3 | 0·36 |
| 670 | ... ... ... ... | 8·4 | 2 | 13 | 43 | 14·39 | 123 | 6 | 31·9 | 2 | 0·36 |
| 671 | ... ... ... ... | 8·2 | 1 | 13 | 43 | 24·14 | 123 | 13 | 4·9 | 1 | 0·38 |
| 672 | ... ... ... .. | 9·0 | ... | 13 | 44 | 15·25 | 127 | 56 | 40·9 | 1 | 0·41 |
| 673 | ... ... ... .. | 9·0 | 1 | 13 | 45 | 23·48 | 128 | 23 | 4·5 | 1 | 0·41 |
| 674 | ... ... ... ... | 8·5 | 1 | 13 | 45 | 42·40 | 122 | 54 | 31·3 | 2 | 0·38 |
| 675 | 8 Bootis η ... .. | 3·0 | ... | 13 | 48 | 12·51 | 70 | 55 | 10·5 | 13 | 0·37 |
| 676 | ... ... ... .. | 8·3 | 2 | 13 | 50 | 11·62 | 123 | 43 | 44·0 | 2 | 0·32 |
| 677 | ... ... ... ... | 8·0 | 1 | 13 | 50 | 40·64 | 123 | 43 | 55·5 | 1 | 0·30 |
| 678 | ... ... ... ... | 8·4 | 1 | 13 | 53 | 7·78 | 135 | 40 | 51·4 | 1 | 0·36 |
| 679 | 93 Virginis τ ... ... | 4·5 | ... | 13 | 54 | 43·58 | 87 | 47 | 45·3 | 13 | 0·38 |
| 680 | 5794 Lacaille ... .. | 6·3 | 1 | 13 | 57 | 4·80 | 152 | 47 | 34·6 | 1 | 0·39 |
| 681 | 6585 Taylor ... ... | 7·7 | 1 | 14 | 1 | 22·44 | 124 | 14 | 3·6 | 1 | 0·34 |
| 682 | ... ... ... ... | 9·0 | 2 | 14 | 2 | 25·96 | 129 | 4 | 15·2 | 2 | 0·41 |
| 683 | U Bootis Var. 4 ... ... | 9·5 | 3 | 14 | 4 | 21·64 | 79 | 32 | 32·2 | 3 | 0·38 |
| 684 | 6616 Taylor ... .. | 5·7 | 1 | 14 | 5 | 30·32 | 146 | 26 | 48·4 | 1 | 0·37 |
| 685 | 98 Virginis κ ... ... | 4·3 | ... | 14 | 5 | 38·62 | 99 | 38 | 20·2 | 2 | 0·38 |
| 686 | ... ... ... ... | 8·2 | 1 | 14 | 6 | 8·79 | 135 | 1 | 18·1 | 1 | 0·36 |
| 687 | 16 Bootis α (*Arcturus*) .. | 1·0 | ... | 14 | 9 | 27·55 | 70 | 6 | 30·0 | 6 | 0·42 |
| 688 | 100 Virginis λ .. .. | 5·0 | ... | 14 | 11 | 45·19 | 102 | 44 | 35·8 | 5 | 0·38 |
| 689 | ... ... ... .. | 9·6 | 1 | 14 | 12 | 30·81 | 136 | 49 | 53·7 | 1 | 0·34 |
| 690 | ... ... ... ... | 8·9 | 2 | 14 | 14 | 34·38 | 122 | 35 | 44·6 | 2 | 0·44 |
| 691 | ... .. ... .. | 8·7 | 1 | 14 | 15 | 19·50 | 122 | 11 | 35·6 | 1 | 0·37 |
| 692 | 6709 Taylor .. .. | 7·0 | 1 | 14 | 15 | 58·65 | 119 | 3 | 19·6 | 1 | 0·42 |
| 693 | 2 Libræ .. ... ... | 6·7 | ... | 14 | 16 | 6·76 | 101 | 5 | 28·8 | 1 | 0·31 |
| 694 | 5926 Lacaille ... ... | 8·3 | 3 | 14 | 16 | 40·24 | 118 | 59 | 58·2 | 3 | 0·42 |
| 695 | 6721 Taylor .. | 7·0 | ... | 14 | 17 | 22·38 | 101 | 3 | 1·7 | 1 | 0·30 |
| 696 | .. ... .. .. | 10·0 | 1 | 14 | 17 | 24·96 | 123 | 13 | 23·0 | 1 | 0·42 |
| 697 | 6740 Taylor .. | 7·5 | 3 | 14 | 19 | 5·08 | 133 | 42 | [illegible] | 3 | 0·43 |
| 698 | ... .. . .. | 9·3 | 1 | 14 | 21 | 57·61 | 122 | 33 | 58·6 | 1 | 0·41 |
| 699 | 5962 Lacaille ... .. | 7·5 | 1 | 14 | 22 | 42·28 | 129 | 46 | 44·0 | 1 | 0·32 |
| 700 | ... . ... .. | 8·0 | .. | 14 | 23 | 42·53 | 136 | 54 | 23·6 | 1 | 0·46 |

683.—U. Bootis Var. 4.—Period uncertain.—Range, 8·7 to 12·0 magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B.A.C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 666 | .. | + 3·4299 | + 0·0283 | .. | + 18·240 | − 0·216 | ... | |
| 667 | . ... | + 4·1552 | + 0·0564 | ... | + 18·229 | − 0·261 | ... | |
| 668 | ... . .. | + 3·5384 | + 0·0350 | .. | + 18·158 | − 0·228 | .. | — |
| 669 | 85 Ursæ Majoris η . | + 2·3850 | − 0·0108 | − 0·012 | + 18·065 | − 0·159 | + 0·03 | 4607 |
| 670 | ... .. .. | + 3·4517 | + 0·0287 | .. | + 18·055 | − 0·227 | ... | .. |
| 671 | . .. | + 3·4538 | + 0·0288 | ... | + 18·048 | − 0·228 | ... | ... |
| 672 | .. .. .. | + 3·5301 | + 0·0341 | .. | + 18·016 | − 0·235 | ... | ... |
| 673 | ... . | + 3·5421 | + 0·0346 | ... | + 17·972 | − 0·238 | ... | .. |
| 674 | ... ... . | + 3·4571 | + 0·0286 | ... | + 17·900 | − 0·233 | ... | ... |
| 675 | 8 Bootis η ... .. | + 2·8617 | − 0·0006 | − 0·004 | + 17·861 | − 0·199 | + 0·36 | 4648 |
| 676 | ... . | + 3·4849 | + 0·0295 | ... | + 17·781 | − 0·243 | ... | .. |
| 677 | .. . . | + 3·4866 | + 0·0296 | . | + 17·762 | − 0·244 | ... | ... |
| 678 | ... ... | + 3·7208 | + 0·0453 | ... | + 17·661 | − 0·265 | ... | ... |
| 679 | 93 Virginis τ .. | + 3·0475 | + 0·0061 | + 0·001 | + 17·594 | − 0·211 | + 0·07 | 4672 |
| 680 | 5794 Lacaille . | + 4·3436 | + 0·0996 | ... | + 17·494 | − 0·318 | .. | .. |
| 681 | 6585 Taylor ... .. | + 3·5317 | + 0·0302 | ... | + 17·307 | − 0·269 | . | ... |
| 682 | ... ... .. | + 3·6249 | + 0·0357 | ... | + 17·260 | − 0·276 | ... | .. |
| 683 | U Bootis Var. 4 .. | + 2·9447 | + 0·0035 | ... | + 17·174 | − 0·220 | ... | ... |
| 684 | 6616 Taylor .. | + 4·1217 | + 0·0686 | ... | + 17·122 | − 0·320 | ... | 4709 |
| 685 | 98 Virginis κ | + 3·1905 | + 0·0122 | + 0·001 | + 17·117 | − 0·250 | − 0·02 | 4716 |
| 686 | ... .. | + 3·7719 | + 0·0445 | .. | + 17·058 | − 0·295 | ... | . |
| 687 | 16 Bootis α (*Arcturus*) | + 2·8132 | + 0·0004 | − 0·079 | + 16·941 | − 0·237 | + 1·93 | 4739 |
| 688 | 100 Virginis λ ... | + 3·2365 | + 0·0140 | − 0·002 | + 16·832 | − 0·261 | − 0·02 | 4743 |
| 689 | ... . .. | + 3·8509 | + 0·0477 | .. | + 16·795 | − 0·314 | ... | . |
| 690 | ... .. | + 3·5458 | + 0·0284 | . | + 16·696 | − 0·298 | ... | ... |
| 691 | .. ... .. | + 3·5408 | + 0·0281 | . | + 16·659 | − 0·294 | ... | |
| 692 | 6709 Taylor .. | + 3·4875 | + 0·0252 | ... | + 16·627 | − 0·292 | .. | ... |
| 693 | 2 Libræ .. ... | + 3·2188 | + 0·0132 | − 0·004 | + 16·621 | − 0·270 | + 0·09 | 4766 |
| 694 | 5926 Lacaille .. | + 3·4882 | + 0·0253 | ... | + 16·594 | − 0·293 | . | ... |
| 695 | 6721 Taylor ... .. | + 3·2194 | + 0·0132 | . | + 16·559 | − 0·272 | ... | 4772 |
| 696 | .. ... ... | + 3·5662 | + 0·0292 | ... | + 16·557 | − 0·301 | . | ... |
| 697 | 6740 Taylor ... | + 3·8011 | + 0·0423 | . | + 16·474 | − 0·323 | ... | ... |
| 698 | ... ... .. | + 3·5678 | + 0·0285 | ... | + 16·320 | − 0·309 | ... | ... |
| 699 | 5962 Lacaille ... | + 3·7213 | + 0·0365 | ... | + 16·291 | − 0·324 | ... | ... |
| 700 | ... . | + 3·9106 | + 0·0476 | ... | + 16·240 | − 0·342 | ... | ... |

*Mean Positions of Stars for 1864 January 1st.*

| Number. | Star. | Magnitude. | Estimations | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations | Fraction of Year |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 701 | ... ... .. .. | 8·4 | 2 | 14 | 24 | 12·75 | 123 | 48 | 35·8 | 2 | 0·44 |
| 702 | 14634 O. A. N. ... .. | 7·0 | 1 | 14 | 25 | 51·40 | 20 | 8 | 24·1 | 1 | 0·46 |
| 703 | 25 Bootis ρ ... ... | 4·0 | ... | 14 | 25 | 58·06 | 39 | 1 | 49·2 | 8 | 0·41 |
| 704 | 14652 O. A. N. ... ... | 8·5 | 1 | 14 | 27 | 1·13 | 20 | 6 | 57·6 | 1 | 0·46 |
| 705 | R Camelopardi Var. 1 ... | 10·8 | 1 | 14 | 28 | 9·31 | 5 | 33 | 16·5 | 1 | 0·34 |
| 706 | ... ... ... ... | 8·0 | 1 | 14 | 29 | 26·79 | 124 | 55 | 30·2 | 1 | 0·39 |
| 707 | α Centauri (2nd) ... ... | 1·0 | ... | 14 | 30 | 23·07 | 150 | 16 | 21·0 | 2 | 0·44 |
| 708 | ... ... ... ... | 8·3 | 1 | 14 | 32 | 42·12 | 121 | 44 | 17·9 | 1 | 0·39 |
| 709 | α Lupi ... ... .. | 5·8 | 1 | 14 | 32 | 54·02 | 136 | 48 | 6·9 | 1 | 0·42 |
| 710 | 36 Bootis ε (*Mirac*) ... | 2·3 | ... | 14 | 39 | 2·84 | 62 | 21 | 3·7 | 11 | 0·44 |
| 711 | ... ... ... ... | 7·7 | 2 | 14 | 39 | 20·40 | 124 | 9 | 35·1 | 2 | 0·40 |
| 712 | ... ... ... ... | 8·8 | 2 | 14 | 42 | 24·84 | 129 | 6 | 50·7 | 2 | 0·36 |
| 713 | 9 Libræ α² ... ... | 2·3 | .. | 14 | 43 | 21·52 | 105 | 28 | 28·0 | 12 | 0·43 |
| 714 | β Ursæ Minoris Var. 1 ... | 2·0 | ... | 14 | 51 | 8·11 | 15 | 17 | 19·1 | 1 | 0·41 |
| 715 | ... ... ... ... | 9·1 | 1 | 14 | 51 | 23·24 | 39 | 19 | 38·3 | 1 | 0·39 |
| 716 | ... ... ... ... | 9·0 | 1 | 14 | 51 | 35·46 | 123 | 12 | 43·3 | 1 | 0·49 |
| 717 | 6991 Taylor ... ... | 6·4 | 1 | 14 | 51 | 52·37 | 39 | 48 | 49·7 | 1 | 0·39 |
| 718 | 15004 O. A. N. ... ... | 7·5 | 1 | 14 | 53 | 52·88 | 39 | 21 | 3·3 | 1 | 0·39 |
| 719 | 15023 O. A. N. ... ... | 7·5 | 1 | 14 | 55 | 39·47 | 27 | 47 | 28·9 | 1 | 0·46 |
| 720 | 43 Bootis ψ ... ... | 5·0 | ... | 14 | 58 | 37·08 | 62 | 31 | 14·3 | 8 | 0·44 |
| 721 | 7079 Taylor ... ... | 6·7 | 1 | 15 | 3 | 19·98 | 123 | 7 | 14·8 | 1 | 0·49 |
| 722 | 15138 O. A. N ... ... | 9·2 | 1 | 15 | 4 | 7·39 | 43 | 0 | 6·3 | 1 | 0·40 |
| 723 | 24 Libræ ι¹ ... .. | 5·3 | ... | 15 | 4 | 28·26 | 109 | 16 | 29·1 | 2 | 0·38 |
| 724 | 111 R. P. L. ... ... | 6·9 | ... | 15 | 5 | 45·19 | 5 | 31 | 23·7 | 1 | 0·[illegible] |
| 725 | 27 Libræ β ... ... | 2·0 | ... | 15 | 9 | 41·44 | 98 | 51 | 43·6 | 7 | 0·45 |
| 726 | ... ... ... ... | 9·5 | 1 | 15 | 14 | 12·39 | 123 | 7 | 30·8 | 1 | 0·40 |
| 727 | ... ... ... .. | 8·7 | 3 | 15 | 20 | 23·57 | 130 | 8 | 34·7 | 3 | 0·48 |
| 728 | 32 Libræ ζ¹ ... .. | 4·0 | ... | 15 | 20 | 35·48 | 106 | 14 | 22·2 | 1 | 0·46 |
| 729 | ... .. . ... .. | 7·5 | 1 | 15 | 21 | 40·06 | 129 | 25 | 58·8 | 1 | 0·40 |
| 730 | XV 398 W. B. E.... .. | 8·9 | 2 | 15 | 21 | 58·56 | 101 | 15 | 30·5 | 2 | 0·54 |
| 731 | 114 R. P. L. ... ... | 6·9 | ... | 15 | 22 | 29·01 | 2 | 14 | 59·0 | 1 | 0·97 |
| 732 | XV 429 W. B. E.... .. | 9·4 | 2 | 15 | 24 | 2·57 | 101 | 28 | 30·0 | 2 | 0·56 |
| 733 | 7240 Taylor ... .. | 7·5 | 1 | 15 | 24 | 24·18 | 130 | 1 | 28·8 | 1 | 0·36 |
| 734 | 3394 Radcliffe .. ... | 8·0 | 1 | 15 | 25 | 3·61 | 41 | 49 | 6·2 | 1 | 0·46 |
| 735 | 38 Libræ γ ... ... | 4·3 | .. | 15 | 27 | 55·27 | 104 | 20 | 0·1 | 4 | 0·28 |

702.—704.—719.—734.—Comparison stars for Comet 2, 1862.
706.—R Camelopardi Var. 1.—Period 266 days.—Range, 8th to 12th magnitude.
714.—β Ursæ Minoris Var. 1.—(*Kochab*.)—Supposed to vary irregularly from 2nd to 2·5 magnitude.
716.—717.—718.—722.—Comparison stars for Comet 2, 1861.
724.—2213 Groombridge.
730.—732.—Comparison stars for Sappho in 1864.
731.—2283 Groombridge.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension | | | In Polar Distance | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 701 | ... .. | + 3·5990 | + 0·0297 | . | + 16·214 | − 0·316 | .. | ... |
| 702 | 14634 O. A. N. . | + 0·9053 | + 0·0359 | .. | + 16·199 | − 0·065 | . | .. |
| 703 | 25 Bootis ρ ... . | + 2·5048 | − 0·0015 | − 0·008 | + 16·124 | − 0·233 | − 0·14 | 4908 |
| 704 | 14652 O. A. N. . | + 0·8876 | + 0·0366 | .. | + 16·068 | − 0·084 | ... | ... |
| 705 | R Camelopardi Var. 1 | − 5·2092 | + 1·0886 | .. | + 16·008 | − 0·451 | ... | ... |
| 706 | ... ... ... | + 2·6386 | + 0·0306 | .. | + 15·941 | − 0·329 | ... | ... |
| 707 | α Centauri (2nd) | + 4·4096 | + 0·0878 | − 0·476 | + 15·894 | − 0·410 | − 0·81 | 4933 |
| 708 | .. ... | + 3·5833 | + 0·0274 | . | + 15·766 | − 0·330 | .. | ... |
| 709 | α Lupi .. ... | + 3·9531 | + 0·0472 | .. | + 15·755 | − 0·364 | ... | 4939 |
| 710 | 36 Bootis ε (*Mirac*) .. | + 2·6240 | − 0·0001 | − 0·005 | + 15·417 | − 0·252 | − 0·01 | 4976 |
| 711 | ... .. .. | + 3·6532 | + 0·0294 | ... | + 15·400 | − 0·349 | .. | ... |
| 712 | ... . | + 3·7796 | + 0·0350 | ... | + 15·227 | − 0·363 | .. | ... |
| 713 | 9 Libræ α² ... .. | + 3·3140 | + 0·0154 | − 0·007 | + 15·173 | − 0·324 | + 0·06 | 4995 |
| 714 | β Ursæ Minoris Var. 1 | − 0·2500 | + 0·1022 | − 0·005 | + 14·719 | + 0·018 | + 0·03 | 4996 |
| 715 | ... . | + 1·9623 | + 0·0014 | .. | + 14·704 | − 0·201 | — | .. |
| 716 | . .. ... | + 3·6679 | + 0·0280 | .. | + 14·692 | − 0·370 | — | — |
| 717 | 6991 Taylor ... . | + 1·9789 | + 0·0013 | ... | + 14·675 | − 0·203 | ... | 4997 |
| 718 | 15004 O. A. N . | + 1·9503 | + 0·0017 | ... | + 14·554 | − 0·202 | ... | ... |
| 719 | 15023 O. A. N .. | + 1·3126 | + 0·0151 | — | + 14·447 | − 0·139 | — | .. |
| 720 | 43 Bootis ψ .. .. | + 2·5833 | + 0·0010 | − 0·013 | + 14·262 | − 0·231 | 0·00 | 4969 |
| 721 | 7079 Taylor ... | + 3·6978 | + 0·0273 | ... | + 13·974 | − 0·393 | ... | — |
| 722 | 15138 O. A. N. | + 2·0403 | + 0·0015 | . | + 13·924 | − 0·220 | . | ... |
| 723 | 24 Libræ ι¹ ... . | + 3·4090 | + 0·0171 | − 0·002 | + 13·902 | − 0·364 | + 0·04 | 4996 |
| 724 | 111 R. P. L. ... .. | − 6·9459 | + 1·1880 | . | + 13·821 | + 0·728 | . | 5022 |
| 725 | 27 Libræ β .. .. | + 3·2258 | + 0·0117 | − 0·009 | + 13·569 | − 0·353 | + 0·01 | 5034 |
| 726 | ... ... .. | + 3·7260 | + 0·0264 | .. | + 13·275 | − 0·414 | — | — |
| 727 | .. .. | + 3·9370 | + 0·0332 | ... | + 12·865 | − 0·447 | — | — |
| 728 | 32 Libræ ξ¹ ... | + 3·3711 | + 0·0148 | + 0·002 | + 12·852 | − 0·284 | + 0·05 | 5089 |
| 729 | ... . | + 3·9195 | + 0·0322 | | + 12·779 | − 0·445 | . | — |
| 730 | XV 395 W. B. E. .. | + 3·2775 | + 0·0124 | — | + 12·758 | − 0·374 | — | — |
| 731 | 114 R. P. L. .. | − 23·2282 | + 7·7947 | . | + 12·724 | + 2·614 | — | 5140 |
| 732 | XV 429 W. B. E. . | + 3·2831 | + 0·0125 | — | + 12·619 | − 0·377 | — | — |
| 733 | 7240 Taylor ... | + 3·9460 | + 0·0325 | ... | + 12·594 | − 0·453 | — | — |
| 734 | 3394 Radcliffe .. | + 1·9064 | + 0·0037 | .. | + 12·549 | − 0·222 | — | — |
| 735 | 38 Libræ γ . | + 3·3413 | + 0·0136 | + 0·002 | + 12·352 | − 0·280 | − 0·02 | 5134 |

707.—Proper Motions adopted from "*Stone's Catalogue.*"
728.—Proper Motions adopted from "*Greenwich Catalogue.*"

## *Mean Positions of Stars for 1864 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 736 | 5 Cor. Bor α (*Alpheta*) ... | 2·0 | ... | 15 | 28 | 55·81 | 62 | 49 | 33·6 | 5 | 0·49 |
| 737 | ... ... ... ... | 9·8 | 1 | 15 | 29 | 12·53 | 119 | 40 | 28·0 | 1 | 0·42 |
| 738 | ... ... ... ... | 9·0 | 1 | 15 | 30 | 9·95 | 129 | 33 | 27·5 | 1 | 0·40 |
| 739 | 28530 Lalande ... ... | 9·5 | 1 | 15 | 31 | 50·66 | 47 | 25 | 19·7 | 1 | 0·46 |
| 740 | XV 645 W. B. E ... ... | 8·2 | 2 | 15 | 34 | 22·58 | 102 | 19 | 15·0 | 3 | 0·48 |
| 741 | XV 675 W. B. E. ... ... | 9·2 | 3 | 15 | 35 | 56·43 | 102 | 41 | 26·6 | 3 | 0·48 |
| 742 | 24 Serpentis α ... ... | 2·3 | ... | 15 | 37 | 34·18 | 83 | 8 | 39·1 | 7 | 0·48 |
| 743 | ... ... ... ... | 9·5 | 2 | 15 | 41 | 26·72 | 62 | 3 | 16·3 | 2 | 0·40 |
| 744 | ... ... ... .. | 10·0 | 1 | 15 | 42 | 32·18 | 61 | 46 | 38·9 | 1 | 0·39 |
| 745 | R Serpentis Var. 2 ... | 7·4 | 1 | 15 | 44 | 25·44 | 74 | 27 | 6·8 | 1 | 0·50 |
| 746 | 3462 Radcliffe ... ... | 8·0 | 1 | 15 | 46 | 20·61 | 47 | 1 | 30·6 | 1 | 0·46 |
| 747 | 28970 Lalande ... .. | 7·8 | 1 | 15 | 47 | 57·06 | 70 | 49 | 3·7 | 1 | 0·56 |
| 748 | 28980 Lalande ... ... | 6·1 | 2 | 15 | 48 | 54·37 | 104 | 25 | 44·7 | 3 | 0·48 |
| 749 | 16 Ursæ Minoris ζ ... | 4·0 | ... | 15 | 48 | 59·55 | 11 | 47 | 19·8 | 2 | 0·40 |
| 750 | ... ... ... ... | 9·0 | 2 | 15 | 49 | 24·72 | 103 | 59 | 1·0 | 3 | 0·49 |
| 751 | 29054 Lalande ... ... | 8·6 | 3 | 15 | 50 | 30·67 | 104 | 3 | 35·5 | 3 | 0·42 |
| 752 | 8 Scorpii β¹ ... ... | 2·0 | ... | 15 | 57 | 31·94 | 109 | 25 | 48·7 | 7 | 0·45 |
| 753 | .. . . ... | 8·3 | 3 | 15 | 59 | 58·54 | 105 | 16 | 22·1 | 3 | 0·43 |
| 754 | 15281 O. A. S ... ... | 9·3 | 3 | 16 | 0 | 58·47 | 105 | 43 | 43·2 | 3 | 0·41 |
| 755 | 14 Scorpii ν ... ... | 4·3 | ... | 16 | 4 | 5·68 | 109 | 6 | 15·7 | 2 | 0·35 |
| 756 | 116 R. P. L. ... ... | 6·9 | ... | 16 | 4 | 43·76 | 4 | 18 | 46·2 | 1 | 0·01 |
| 757 | 15412 O. A S .. ... | 9·3 | 3 | 16 | 6 | 18·59 | 106 | 3 | 7·8 | 3 | 0·42 |
| 758 | 15418 O. A. S. ... ... | 8·7 | 3 | 16 | 6 | 30·91 | 106 | 11 | 31·1 | 3 | 0·44 |
| 759 | 1 Ophiuchi δ ... ... | 3·0 | ... | 16 | 7 | 13·22 | 93 | 20 | 30·5 | 5 | 0·50 |
| 760 | 15544 O. A. S. ... ... | 8·7 | 3 | 16 | 12 | 46·73 | 106 | 45 | 6·3 | 3 | 0·41 |
| 761 | 20 Scorpii σ ... ... | 3·3 | ... | 16 | 12 | 55·52 | 115 | 15 | 47·4 | 3 | 0·41 |
| 762 | 15552 O. A. S. ... ... | 9·2 | 1 | 16 | 13 | 13·80 | 107 | 22 | 1·0 | 1 | 0·50 |
| 763 | .. ... .. ... | 8·9 | 1 | 16 | 15 | 46·22 | 128 | 7 | 41·2 | 1 | 0·46 |
| 764 | 21 Scorpii α (*Antares*) ... | 1·3 | ... | 16 | 21 | 4·32 | 116 | 7 | 36·9 | 10 | 0·47 |
| 765 | 30 Herculis g Var. 5 .. | 5·5 | 1 | 16 | 24 | 10·48 | 47 | 49 | 3·4 | 1 | 0·46 |
| 766 | 13 Ophiuchi ζ .. | 3·3 | .. | 16 | 29 | 40·28 | 100 | 17 | 1·7 | 1 | 0·54 |
| 767 | 5784 Brisbane .. .. | 9·5 | 1 | 16 | 30 | 51·60 | 150 | 39 | 20·0 | 1 | 0·40 |
| 768 | 40 Herculis ζ .. | 2·7 | | 16 | 36 | 9·60 | 58 | 8 | 57·5 | 7 | 0·52 |
| 769 | ... .. .. | 10·0 | 1 | 16 | 44 | 52·56 | 75 | 16 | 44·4 | 1 | 0·42 |
| 770 | 27 Ophiuchi κ .. .. | 3·7 | ... | 16 | 51 | 13·82 | 80 | 24 | 40·0 | 7 | 0·56 |

739.—747.—Comparison stars for Comet 2, 1862.
740.—741.—748.—750.—751.—753.—754.—757.—758.—760.—Comparison stars for Sappho in 1864.
745.—R Serpentis Var. 2.—Period 358 days.—Range, 6th to 11th magnitude.
756.—2423 Carrington.
765.—30 Herculis g Var. 5.—Changes irregularly from 5th to 6·3 magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 736 | 5 Coronæ Borealis α ... | + 2·5294 | + 0·0028 | + 0·009 | + 12·283 | − 0·297 | + 0·07 | 5143 |
| 737 | ... ... | + 3·6749 | + 0·0224 | ... | + 12·262 | − 0·129 | ... | ... |
| 738 | ... ... ... | + 3·9487 | + 0·0314 | ... | + 12·197 | − 0·463 | ... | ... |
| 739 | 28530 Lalande ... | + 2·0914 | + 0·0025 | ... | + 12·080 | − 0·249 | ... | ... |
| 740 | XV 645 W. B. E ... | + 3·3071 | + 0·0125 | ... | + 11·906 | − 0·393 | ... | ... |
| 741 | XV 675 W. B. E. ... | + 3·3156 | + 0·0126 | ... | + 11·792 | − 0·396 | ... | ... |
| 742 | 24 Serpentis α ... | + 2·9413 | + 0·0062 | + 0·009 | + 11·677 | − 0·354 | − 0·05 | 5166 |
| 743 | ... ... ... | + 2·4886 | + 0·0027 | ... | + 11·399 | − 0·304 | ... | ... |
| 744 | ... ... ... | + 2·4795 | + 0·0027 | ... | + 11·320 | − 0·304 | ... | ... |
| 745 | R Serpentis Var. 2 ... | + 2·7634 | + 0·0043 | ... | + 11·183 | − 0·340 | ... | ... |
| 746 | 3462 Radcliffe ... | + 2·0823 | + 0·0033 | ... | + 11·044 | − 0·252 | ... | ... |
| 747 | 28970 Lalande ... | + 2·6821 | + 0·0039 | ... | + 10·925 | − 0·388 | ... | ... |
| 748 | 28980 Lalande ... | + 3·3614 | + 0·0127 | ... | + 10·856 | − 0·417 | ... | ... |
| 749 | 16 Ursæ Minoris ζ ... | − 2·3157 | + 0·2043 | + 0·029 | + 10·850 | + 0·279 | + 0·05 | 5256 |
| 750 | ... ... ... | + 3·3524 | + 0·0125 | ... | + 10·819 | − 0·417 | ... | ... |
| 751 | 29054 Lalande ... | + 3·3549 | + 0·0125 | ... | + 10·738 | − 0·418 | ... | ... |
| 752 | 8 Scorpii β¹ ... | + 3·4778 | + 0·0142 | − 0·002 | + 10·214 | − 0·441 | + 0·02 | 5320 |
| 753 | ... ... ... | + 3·3883 | + 0·0123 | ... | + 10·029 | − 0·432 | ... | ... |
| 754 | 15281 O. A. S. ... | + 3·3990 | + 0·0124 | ... | + 9·963 | − 0·435 | ... | ... |
| 755 | 14 Scorpii ν ... ... | + 3·4772 | + 0·0136 | − 0·002 | + 9·715 | − 0·445 | + 0·03 | 5382 |
| 756 | 116 R. P. L. ... ... | − 12·4940 | + 1·7618 | ... | + 9·667 | + 1·598 | ... | ... |
| 757 | 15412 O. A. S. ... | + 3·4104 | + 0·0122 | ... | + 9·545 | − 0·442 | ... | ... |
| 758 | 15418 O. A. S. ... | + 3·4135 | + 0·0123 | ... | + 9·529 | − 0·442 | ... | ... |
| 759 | 1 Ophiuchi δ ... | + 3·1408 | + 0·0081 | − 0·006 | + 9·476 | − 0·408 | + 0·13 | 5414 |
| 760 | 15544 O. A. S. ... | + 3·4318 | + 0·0119 | ... | + 9·044 | − 0·451 | ... | ... |
| 761 | 20 Scorpii σ ... ... | + 3·6354 | + 0·0156 | − 0·008 | + 9·083 | − 0·478 | − 0·01 | 5447 |
| 762 | 15552 O. A. S. ... | + 3·4457 | + 0·0121 | ... | + 9·009 | − 0·453 | ... | ... |
| 763 | ... ... ... | + 4·0148 | + 0·0233 | ... | + 8·810 | − 0·530 | ... | ... |
| 764 | 21 Scorpii α (*Antares*) | + 3·6676 | + 0·0150 | − 0·001 | + 8·291 | − 0·491 | + 0·08 | 5498 |
| 765 | 30 Herculis Var. g ... | + 1·9649 | + 0·0012 | + 0·005 | + 8·144 | − 0·265 | − 0·07 | 5523 |
| 766 | 13 Ophiuchi ζ ... | + 3·2963 | + 0·0088 | + 0·001 | + 7·701 | − 0·447 | − 0·08 | 5548 |
| 767 | 5781 Brisbane ... | + 5·2731 | + 0·0545 | ... | + 7·601 | − 0·715 | ... | 5554 |
| 768 | 40 Herculis ζ ... | + 2·2963 | + 0·0033 | − 0·034 | + 7·175 | − 0·316 | − 0·45 | 5604 |
| 769 | ... ... ... | + 2·7395 | + 0·0039 | ... | + 6·437 | − 0·281 | ... | ... |
| 770 | 27 Ophiuchi ε ... | + 2·8562 | + 0·0044 | − 0·023 | + 5·928 | − 0·462 | − 0·02 | 5708 |

749 — 766. — Proper Motions adopted from "*Greenwich Catalogue.*"
770.—Proper Motion adopted from "*Stone's Catalogue.*"

## *Mean Positions of Stars for 1864 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 771 | 16232 O. A. S. ... .. | 9·8 | 1 | 16 | 53 | 57·53 | 110 | 14 | 43·5 | 1 | 0·56 |
| 772 | 16233 O. A. S. ... ... | 8·0 | 1 | 16 | 53 | 58·62 | 110 | 23 | 35·0 | 1 | 0·53 |
| 773 | ... ... ... ... | 7·7 | 1 | 16 | 55 | 15·87 | 109 | 56 | 33·8 | 1 | 0·42 |
| 774 | 22 Ursæ Minoris ε .. | 4·0 | ... | 17 | 0 | 1·41 | 7 | 44 | 41·4 | 6 | 0·55 |
| 775 | 35 Ophiuchi η ... ... | 2·3 | ... | 17 | 2 | 34·87 | 105 | 33 | 10·3 | 2 | 0·42 |
| 776 | ... ... ... ... | 9·0 | 1 | 17 | 5 | 44·18 | 130 | 50 | 23·7 | 1 | 0·56 |
| 777 | 64 Herculis α Var. 1 ... | 3·0 | ... | 17 | 8 | 26·77 | 75 | 27 | 8·4 | 8 | 0·55 |
| 778 | ... ... ... ... | 8·2 | 1 | 17 | 9 | 1·79 | 124 | 4 | 16·2 | 1 | 0·49 |
| 779 | ... ... ... ... | 9·8 | 1 | 17 | 11 | 57·45 | 130 | 27 | 39·3 | 1 | 0·56 |
| 780 | 8017 Taylor ... ... | 6·7 | 1 | 17 | 13 | 21·23 | 114 | 45 | 54·6 | 3 | 0·49 |
| 781 | 42 Ophiuchi θ ... ... | 3·3 | ... | 17 | 13 | 39·53 | 114 | 51 | 36·4 | 5 | 0·56 |
| 782 | 44 Ophiuchi b ... ... | 5·0 | 1 | 17 | 18 | 3·97 | 114 | 2 | 48·4 | 1 | 0·62 |
| 783 | δ Aræ ... ... ... | 6·7 | 1 | 17 | 18 | 49·67 | 150 | 33 | 55·7 | 2 | 0·48 |
| 784 | ... . ... .. | 8·3 | 1 | 17 | 21 | 22·44 | 130 | 32 | 55·8 | 1 | 0·56 |
| 785 | ... ... ... .. | 8·4 | 1 | 17 | 21 | 22·60 | 130 | 50 | 57·0 | 1 | 0·62 |
| 786 | ... ... ... ... | 8·7 | 1 | 17 | 28 | 25·03 | 125 | 14 | 39·7 | 1 | 0·53 |
| 787 | 55 Ophiuchi α .. ... | 2·0 | ... | 17 | 28 | 37·24 | 77 | 20 | 18·4 | 5 | 0·55 |
| 788 | ... ... ... ... | 8·9 | 1 | 17 | 29 | 22·89 | 130 | 56 | 24·1 | 1 | 0·56 |
| 789 | ... ... ... .. | 9·3 | 1 | 17 | 34 | 34·46 | 126 | 15 | 0·4 | 1 | 0·56 |
| 790 | ... . . ... ... | 9·8 | 1 | 17 | 39 | 16·94 | 127 | 17 | 24·4 | 1 | 0·56 |
| 791 | ... ... ... ... | 8·5 | 1 | 17 | 39 | 43·84 | 127 | 14 | 36·4 | 1 | 0·54 |
| 792 | 86 Herculis μ ... ... | 3·3 | ... | 17 | 41 | 8·20 | 62 | 11 | 32·4 | 2 | 0·56 |
| 793 | 31 Draconis $\psi^1$ (1st) . | 6·5 | 1 | 17 | 44 | 22·18 | 17 | 47 | 6·9 | 1 | 0·46 |
| 794 | . ... ... ... | 8·9 | 1 | 17 | 45 | 2·69 | 128 | 47 | 39·5 | 1 | 0·60 |
| 795 | 7504 Lacaille ... ... | 7·0 | 1 | 17 | 48 | 32·17 | 129 | 7 | 18·6 | 1 | 0·[illegible] |
| 796 | ... .. ... | 8·7 | 3 | 17 | 50 | 25·20 | 130 | 50 | 22·6 | 3 | 0·57 |
| 797 | 7518 Lacaille ... .. | 7·0 | 1 | 17 | 52 | 43·11 | 149 | 12 | 14·6 | 1 | 0·62 |
| 798 | 33 Draconis γ (*Etanin*) | 2·5 | . | 17 | 53 | 26·91 | 38 | 29 | 39·1 | 1 | 0·61 |
| 799 | 8355 Taylor . ... | 5·5 | 1 | 17 | 56 | 59·54 | 133 | 25 | 39·0 | 1 | 0·60 |
| 800 | ... ... ... ... | 9·2 | 2 | 18 | 1 | 13·76 | 131 | 43 | 35·0 | 2 | 0·58 |
| 801 | ... .. .. .. | 9·0 | 1 | 18 | 2 | 49·27 | 131 | 40 | 29·2 | 1 | 0·56 |
| 802 | T Herculis Var. 4 . | 8·2 | 1 | 18 | 3 | 57·37 | 53 | 59 | 52·7 | 1 | 0·62 |
| 803 | 13 Sagittarii μ ... .. | 4·5 | .. | 18 | 5 | 37·75 | 111 | 5 | 27·7 | 4 | 0·61 |
| 804 | 15 Sagittarii . ... | 5·0 | 1 | 18 | 7 | 6·02 | 110 | 45 | 54·7 | 1 | 0·62 |
| 805 | 8461 Taylor . ... | 6·1 | 1 | 18 | 14 | 21·47 | 134 | 10 | 24·8 | 1 | 0·62 |

777.—α Herculis Var. 1.—Changes irregularly between 3rd and 4th magnitudes.
786.—789.—791.—796.—799.—800.—801.—Comparison stars for Donati's Comet of 1858.
802.—T Herculis Var. 4.—Period 165 days.—Range, 7·5 to 12th magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 771 | 16232 O. A. S. ... | + 3·5449 | + 0·0093 | ... | + 5·690 | − 0·498 | ... | ... |
| 772 | 16233 O. A. S. ... | + 3·5486 | + 0·0093 | ... | + 5·698 | − 0·498 | ... | ... |
| 773 | ... ... ... | + 3·5380 | + 0·0091 | ... | + 5·590 | − 0·498 | ... | |
| 774 | 22 Ursæ Minoris ε ... | + 6·4245 | + 0·3038 | + 0·009 | + 5·188 | + 0·908 | − 0·01 | 5780 |
| 775 | 35 Ophiuchi η ... | + 3·4325 | + 0·0074 | + 0·001 | + 4·972 | − 0·457 | − 0·13 | 5781 |
| 776 | ... ... ... | + 4·1956 | + 0·0148 | ... | + 4·704 | − 0·597 | ... | ... |
| 777 | 64 Herculis α Var. 1 ... | + 2·7338 | + 0·0085 | − 0·003 | + 4·473 | − 0·391 | − 0·04 | 5821 |
| 778 | ... ... ... | + 3·9540 | + 0·0113 | ... | + 4·424 | − 0·565 | ... | ... |
| 779 | ... ... ... | + 4·1875 | + 0·0182 | ... | + 4·173 | − 0·599 | ... | ... |
| 780 | 8017 Taylor ... ... | + 3·6761 | + 0·0080 | ... | + 4·053 | − 0·527 | ... | 5846 |
| 781 | 42 Ophiuchi θ ... | + 3·6788 | + 0·0080 | − 0·003 | + 4·028 | − 0·528 | − 0·02 | 5851 |
| 782 | 44 Ophiuchi b ... | + 3·6587 | + 0·0073 | − 0·002 | + 3·649 | − 0·527 | + 0·12 | 5876 |
| 783 | δ Aræ ... ... | + 5·4035 | + 0·0269 | − 0·000 | + 3·584 | − 0·778 | + 0·09 | 5877 |
| 784 | ... ... ... | + 4·1997 | + 0·0109 | ... | + 3·364 | − 0·605 | ... | ... |
| 785 | ... ... ... | + 4·2118 | + 0·0110 | ... | + 3·364 | − 0·607 | ... | ... |
| 786 | ... ... ... | + 4·0077 | + 0·0079 | ... | + 2·755 | − 0·580 | ... | ... |
| 787 | 55 Ophiuchi α ... | + 2·7745 | + 0·0030 | + 0·004 | + 2·737 | − 0·402 | + 0·20 | 5941 |
| 788 | ... ... ... | + 4·2215 | + 0·0091 | ... | + 2·671 | − 0·611 | ... | ... |
| 789 | ... ... ... | + 4·0465 | + 0·0069 | ... | + 2·221 | − 0·587 | ... | ... |
| 790 | ... ... ... | + 4·0860 | + 0·0061 | ... | + 1·811 | − 0·594 | ... | ... |
| 791 | ... ... ... | + 4·0846 | + 0·0060 | ... | + 1·771 | − 0·594 | ... | ... |
| 792 | 86 Herculis μ ... | + 2·3694 | + 0·0025 | − 0·026 | + 1·649 | − 0·346 | + 0·74 | 6021 |
| 793 | 31 Draconis ψ¹ (1st) ... | − 1·0861 | + 0·0155 | − 0·002 | + 1·367 | + 0·157 | + 0·26 | 6047 |
| 794 | ... ... ... | + 4·1446 | + 0·0049 | ... | + 1·308 | − 0·601 | ... | ... |
| 795 | 7504 Lacaille ... | + 4·1578 | + 0·0042 | ... | + 1·002 | − 0·606 | ... | ... |
| 796 | ... ... ... | + 4·2267 | + 0·0012 | ... | + 0·538 | − 0·616 | ... | ... |
| 797 | 7518 Lacaille ... | + 5·3142 | + 0·0052 | ... | + 0·637 | − 0·775 | ... | ... |
| 798 | 33 Draconis γ ... | + 1·3915 | + 0·0030 | 0·000 | + 0·573 | − 0·203 | + 0·01 | 6091 |
| 799 | 8355 Taylor ... ... | + 4·3375 | + 0·0021 | − 0·006 | + 0·263 | − 0·632 | + 0·12 | 6112 |
| 800 | ... ... ... | + 4·2644 | + 0·0011 | ... | − 0·107 | − 0·622 | ... | ... |
| 801 | ... ... ... | + 4·2650 | + 0·0007 | ... | − 0·247 | − 0·623 | ... | ... |
| 802 | T Herculis Var. 4 ... | + 2·2688 | + 0·0021 | ... | − 0·316 | − 0·331 | ... | ... |
| 803 | 13 Sagittarii μ ... | + 3·5875 | + 0·0009 | − 0·004 | − 0·492 | − 0·522 | + 0·01 | 6168 |
| 804 | 15 Sagittarii ... | + 3·5788 | + 0·0008 | − 0·003 | − 0·621 | − 0·522 | + 0·02 | 6179 |
| 805 | 8461 Taylor ... ... | + 4·3684 | − 0·0028 | ... | − 1·360 | − 0·635 | ... | 6228 |

783—799.—Proper Motions adopted from "*Stone's Catalogue*."
804.—Proper Motions adopted from "*Greenwich Catalogue*."

*Mean Positions of Stars for* 1864 *January* 1*st*,

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | *h.* | *m.* | *s.* | ° | ′ | ″ | | |
| 806 | 23 Ursæ Minoris δ ... | 4·5 | ... | 18 | 16 | 13·39 | 3 | 23 | 46·6 | 5 | 0·39 |
| 807 | 21 Sagittarii ... ... | 5·0 | 1 | 18 | 17 | 14·94 | 110 | 36 | 40·7 | 1 | 0·62 |
| 808 | δ² Telescopii ... ... | 6·5 | 2 | 18 | 21 | 58·19 | 135 | 50 | 46·0 | 2 | 0·58 |
| 809 | ... ... ... ... | 9·0 | 1 | 18 | 22 | 51·47 | 135 | 15 | 54·9 | 1 | 0·56 |
| 810 | θ Coronæ Australis ... | 6·0 | 1 | 18 | 23 | 47·14 | 132 | 24 | 22·3 | 1 | 0·63 |
| 811 | 3 Lyræ α (*Vega*) ... ... | 1·0 | ... | 18 | 32 | 19·97 | 51 | 20 | 29·2 | 4 | 0·61 |
| 812 | R Scuti Var. 1 ... ... | 6·0 | 1 | 18 | 40 | 13·20 | 95 | 50 | 53·3 | 1 | 0·64 |
| 813 | 7872 Lacaille ... ... | 6·0 | 1 | 18 | 42 | 20·14 | 136 | 45 | 1·7 | 1 | 0·63 |
| 814 | 7878 Lacaille ... ... | 7·0 | 1 | 18 | 42 | 53·19 | 136 | 44 | 39·6 | 1 | 0·63 |
| 815 | 10 Lyræ β Var. 1... ... | 4·0 | ... | 18 | 45 | 3·41 | 56 | 47 | 36·5 | 3 | 0·66 |
| 816 | ... ... ... ... | 9·7 | 1 | 18 | 46 | 54·04 | 137 | 44 | 56·1 | 1 | 0·65 |
| 817 | 37 Sagittarii ξ² ... ... | 4·0 | ... | 18 | 49 | 36·78 | 111 | 16 | 55·7 | 1 | 0·54 |
| 818 | 13 Lyræ Var. 2 ... ... | 4·3 | ... | 18 | 51 | 11·38 | 46 | 13 | 54·3 | 1 | 0·61 |
| 819 | ... ... ... ... | 7·9 | 2 | 18 | 54 | 10·48 | 122 | 56 | 13·2 | 2 | 0·60 |
| 820 | ... ... ... ... | 10·0 | 2 | 18 | 57 | 17·42 | 111 | 21 | 8·9 | 2 | 0·63 |
| 821 | 17 Aquilæ ζ ... ... | 3·3 | ... | 18 | 59 | 9·45 | 76 | 20 | 11·7 | 7 | 0·66 |
| 822 | ... ... ... ... | 9·5 | ... | 19 | 0 | 51·71 | 82 | 1 | 34·1 | 1 | 0·59 |
| 823 | 41 Sagittarii π ... ... | 4·5 | ... | 19 | 1 | 40·55 | 111 | 14 | 12·3 | 1 | 0·54 |
| 824 | ... ... ... ... | 9·0 | 1 | 19 | 3 | 6·08 | 139 | 22 | 42·7 | 1 | 0·65 |
| 825 | ... ... ... ... | 8·0 | 2 | 19 | 3 | 13·49 | 122 | 51 | 6·1 | 2 | 0·56 |
| 826 | T Sagittarii Var. 3 ... | 8·0 | 4 | 19 | 8 | 23·18 | 107 | 12 | 22·8 | 4 | 0·61 |
| 827 | R Sagittarii Var. 1 ... | 10·0 | 1 | 19 | 8 | 42·57 | 100 | 32 | 38·4 | 1 | 0·65 |
| 828 | ... ... ... ... | 9·5 | 1 | 19 | 9 | 6·37 | 109 | 32 | 47·9 | 1 | 0·64 |
| 829 | 43 Sagittarii *d* ... ... | 5·0 | 1 | 19 | 9 | 40·56 | 100 | 11 | 30·8 | 1 | 0·62 |
| 830 | ... ... ... ... | 8·1 | 1 | 19 | 10 | 0·19 | 107 | 9 | 40·9 | 1 | 0·70 |
| 831 | 25 Aquilæ ω ... ... | 5·7 | ... | 19 | 11 | 25·88 | 78 | 38 | 51·0 | 4 | 0·64 |
| 832 | 44 Sagittarii ρ¹ ... .. | 4·3 | ... | 19 | 13 | 46·80 | 108 | 6 | 1·0 | 1 | 0·62 |
| 833 | ... ... ... ... | 8·2 | 3 | 19 | 16 | 34·39 | 129 | 52 | 46·6 | 3 | 0·60 |
| 834 | 30 Aquilæ δ ... ... | 3·5 | ... | 19 | 18 | 38·37 | 87 | 9 | 14·5 | 7 | 0·65 |
| 835 | 52 Sagittarii *h*² ... ... | 5·0 | ... | 19 | 28 | 25·64 | 115 | 10 | 49·9 | 5 | 0·65 |
| 836 | 8173 Lacaille ... ... | 8·8 | 1 | 19 | 31 | 36·73 | 143 | 15 | 31·5 | 1 | 0·64 |
| 837 | R Cygni Var. 3 ... ... | 9·7 | 2 | 19 | 33 | 12·30 | 40 | 4 | 50·7 | 2 | 0·64 |
| 838 | ... ... ... ... | 9·0 | 1 | 19 | 34 | 23·47 | 127 | 17 | 3·4 | 1 | 0·65 |
| 839 | 50 Aquilæ γ ... ... | 3·0 | ... | 19 | 39 | 47·49 | 79 | 42 | 57·4 | 3 | 0·65 |
| 840 | S Vulpeculæ Var. 3 .. | 9·6 | 1 | 19 | 42 | 49·26 | 63 | 3 | 1·8 | 2 | 0·64 |

810.—813.—814.—Comparison stars for Donati's Comet of 1858.
812.—R Scuti Var. 1.—Period 71 days.—Range, 5th to 8th magnitude.
815.—β Lyræ Var. 1.—Period 12·91 days.—Range, 3·5 to 4·5 magnitude.
818.—13 Lyræ Var. 2.—Period 46 days.—Range, 4·2 to 4·6 magnitude.
819.—825.—Comparison stars for Diana in 1864.
820.—Observed by mistake for Eunomia.
826.—T. Sagittarii Var. 3.—Period 381 days.—Range, 7·5 magnitude to invisibility.
827.—R Sagittarii Var. 1.—Period 270 days.—Range, 7th magnitude to invisibility.
837.—R Cygni Var. 3.—Period 425 days.—Range, 7th magnitude to invisibility.
840.—S Vulpeculæ Var. 3.—Period 67·5 days.—Range, 8·5 to 9·5 magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 806 | 23 Ursæ Minoris δ .. | − 19·3984 | − 0·4743 | + 0·018 | − 1·418 | + 2·823 | − 0·08 | 6231 |
| 807 | 21 Sagittarii ... | + 3·5735 | − 0·0004 | − 0·003 | − 1·508 | − 0·519 | + 0·02 | 6247 |
| 808 | δ² Telescopii ... | + 4·4429 | − 0·0055 | − 0·003 | − 1·920 | − 0·643 | + 0·05 | 6282 |
| 809 | ... ... ... | + 4·4148 | − 0·0050 | ... | − 1·997 | − 0·640 | ... | ... |
| 810 | θ Coronæ Australis ... | + 4·2866 | − 0·0049 | 0·000 | − 2·078 | − 0·620 | + 0·03 | 6296 |
| 811 | 3 Lyræ α (*Vega*) .. | + 2·0130 | + 0·0016 | + 0·017 | − 2·820 | − 0·290 | − 0·28 | 6355 |
| 812 | R Scuti Var. 1 .. | + 3·2069 | − 0·0011 | ... | − 3·501 | − 0·458 | .. | ... |
| 813 | 7872 Lacaille .. | + 4·4693 | − 0·0122 | ... | − 3·683 | − 0·639 | ... | ... |
| 814 | 7878 Lacaille .. | + 4·4684 | − 0·0124 | ... | − 3·731 | − 0·638 | ... | ... |
| 815 | 10 Lyræ β Var. 1 ... | + 2·2137 | + 0·0015 | − 0·002 | − 3·917 | − 0·315 | + 0·03 | 6429 |
| 816 | ... ... .. | + 4·5132 | − 0·0142 | ... | − 4·076 | − 0·643 | ... | .. |
| 817 | 37 Sagittarii ξ² ... | + 3·5806 | − 0·0043 | − 0·001 | − 4·308 | − 0·508 | + 0·03 | 6461 |
| 818 | 13 Lyræ Var. 2 .. | + 1·8232 | + 0·0008 | − 0·001 | − 4·442 | − 0·257 | 0·00 | 6475 |
| 819 | ... ... ... | + 3·9142 | − 0·0085 | ... | − 4·696 | − 0·553 | .. | ... |
| 820 | ... .. .. | + 3·5786 | − 0·0053 | ... | − 4·961 | − 0·503 | ... | ... |
| 821 | 17 Aquilæ ζ ... ... | + 2·7578 | + 0·0003 | − 0·006 | − 5·119 | − 0·387 | + 0·07 | 6528 |
| 822 | ... ... ... | + 2·8914 | − 0·0004 | ... | − 5·263 | − 0·406 | ... | — |
| 823 | 41 Sagittarii π . | + 3·5730 | − 0·0057 | − 0·004 | − 5·332 | − 0·500 | + 0·03 | 6548 |
| 824 | ... ... .. | + 4·5721 | − 0·0208 | ... | − 5·453 | − 0·640 | ... | .. |
| 825 | . ... ... | + 3·9028 | − 0·0100 | ... | − 5·463 | − 0·546 | ... | ... |
| 826 | T. Sagittarii Var. 3 .. | + 3·4678 | − 0·0054 | ... | − 5·893 | − 0·490 | .. | ... |
| 827 | R Sagittarii Var 1 ... | + 3·5256 | − 0·0060 | ... | − 5·923 | − 0·488 | .. | ... |
| 828 | ... ... | + 3·5254 | − 0·0061 | ... | − 5·956 | − 0·488 | ... | ... |
| 829 | 43 Sagittarii d .. | + 3·5161 | − 0·0061 | − 0·004 | − 6·004 | − 0·486 | − 0·01 | 6584 |
| 830 | ... ... .. | + 3·4659 | − 0·0056 | ... | − 6·090 | − 0·479 | .. | — |
| 831 | 25 Aquilæ ω ... ... | + 2·8165 | − 0·0003 | − 0·003 | − 6·150 | − 0·388 | − 0·02 | 6598 |
| 832 | 44 Sagittari ρ¹ . | + 3·4867 | − 0·0061 | − 0·006 | − 6·315 | − 0·480 | − 0·03 | 6619 |
| 833 | ... ... .. | + 4·1274 | − 0·0164 | ... | − 6·576 | − 0·568 | .. | ... |
| 834 | 30 Aquilæ δ ... | + 3·0094 | − 0·0015 | + 0·014 | − 6·748 | − 0·410 | − 0·10 | 6646 |
| 835 | 52 Sagittarii λ² .. | + 3·6543 | − 0·0102 | + 0·002 | − 7·848 | − 0·490 | − 0·02 | 6706 |
| 836 | 8173 Lacaille ... | + 3·7219 | − 0·0358 | ... | − 7·805 | − 0·631 | ... | ... |
| 837 | R Cygni Var. 3 .. | + 1·6129 | − 0·0015 | ... | − 7·983 | − 0·213 | ... | ... |
| 838 | ... ... .. | + 4·0048 | − 0·0179 | ... | − 8·029 | − 0·533 | ... | ... |
| 839 | 50 Aquilæ γ ... ... | + 2·8520 | − 0·0011 | + 0·001 | − 8·459 | − 0·372 | 0·00 | 6772 |
| 840 | S Vulpeculæ Var. 3 | + 2·4596 | + 0·0011 | ... | − 8·607 | − 0·319 | .. | ... |

808—810 —Proper Motions adopted from "*Stone's Catalogue.*"
818 —Proper Motions adopted from "*Greenwich Catalogue.*"

*Mean Positions of Stars for 1864 January 1st.*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 841 | 53 Aquilæ α (*Altair*) .. | 1·3 | ... | 19 | 44 | 8·79 | 81 | 29 | 18·2 | 2 | 0·65 |
| 842 | χ Cygni Var. 2 .. ... | 6·0 | 2 | 19 | 45 | 20·36 | 57 | 25 | 43·0 | 2 | 0·60 |
| 843 | 55 Aquilæ η Var. 1 .. | 4·0 | ... | 19 | 45 | 32·45 | 89 | 20 | 27·9 | 1 | 0·59 |
| 844 | 60 Aquilæ β .. .. | 4·5 | ... | 19 | 48 | 27·84 | 83 | 55 | 50·9 | 4 | 0·66 |
| 845 | ... ... .. ... | 8·5 | 1 | 19 | 49 | 33·81 | 145 | 56 | 51·6 | 1 | 0·70 |
| 146 | ... . ... ... | 9·0 | 2 | 19 | 53 | 0·36 | 147 | 10 | 53·2 | 2 | 0·63 |
| 847 | ... ... ... . .. | 9·1 | 1 | 19 | 55 | 35·36 | 151 | 51 | 39·1 | 1 | 0·75 |
| 848 | 9208 Taylor ... ... | 5·3 | 2 | 19 | 55 | 41·75 | 122 | 26 | 6·0 | 2 | 0·61 |
| 849 | λ Ursæ Minoris ... ... | 6·3 | ... | 20 | 0 | 7·03 | 1 | 5 | 54·6 | 4 | 0·42 |
| 850 | 20046 O. A. N. ... ... | 9·2 | 1 | 20 | 2 | 39·55 | 32 | 23 | 32·3 | 1 | 0·54 |
| 851 | R Capricorni Var. 1 ... | 9·1 | 1 | 20 | 3 | 40·42 | 104 | 40 | 4·6 | 1 | 0·65 |
| 852 | S Aquilæ Var. 4 ... ... | 9·1 | 2 | 20 | 5 | 21·88 | 74 | 46 | 56·4 | 2 | 0·67 |
| 853 | ... .. . ... | 9·0 | 1 | 20 | 7 | 41·31 | 81 | 22 | 28·8 | 1 | 0·69 |
| 854 | 20356 O. A. S. ... .. | 8·2 | 1 | 20 | 8 | 22·17 | 110 | 26 | 8·1 | 1 | 0·75 |
| 855 | ... ... ... ... | 7·0 | 1 | 20 | 10 | 28·82 | 149 | 9 | 1·6 | 1 | 0·70 |
| 856 | 6 Capricorni $\alpha^2$ ... ... | 3·5 | .. | 20 | 10 | 30·27 | 102 | 57 | 50·1 | 7 | 0·65 |
| 857 | 39045 Lalande ... ... | 6·4 | 2 | 20 | 12 | 4·98 | 50 | 3 | 16·4 | 2 | 0·68 |
| 858 | α Pavonis ... ... .. | 2·0 | ... | 20 | 14 | 51·99 | 147 | 10 | 2·1 | 3 | 0·70 |
| 859 | 8441 Lacaille ... ... | 8·3 | 2 | 20 | 18 | 13·10 | 121 | 6 | 58·9 | 2 | 0·66 |
| 860 | 11 Capricorni ρ ... .. | 5·0 | ... | 20 | 21 | 5·91 | 108 | 15 | 38·3 | 7 | 0·66 |
| 861 | 39525 Lalande . .. | 7·0 | 1 | 20 | 24 | 56·21 | 86 | 2 | 29·2 | 2 | 0·72 |
| 862 | ... ... .. ... | 8·3 | 3 | 20 | 27 | 13·08 | 121 | 5 | 54·0 | 3 | [illegible] |
| 863 | .. ... ... .. | 8·9 | 1 | 20 | 27 | 50·62 | 143 | 16 | 24·8 | 1 | 0·63 |
| 864 | 24 Cephei Hev. Var ... | 8·9 | 1 | 20 | 28 | 6·07 | 1 | 17 | 6·8 | 2 | 0·19 |
| 865 | 143 R. P. L. ... .. | 6·7 | ... | 20 | 29 | 42·23 | 5 | 18 | 29·0 | 2 | 0·45 |
| 866 | ... . ... | 8·5 | 1 | 20 | 29 | 45·35 | 143 | 52 | 1·4 | 1 | 0·72 |
| 867 | ... .. .. | 8·0 | 2 | 20 | 30 | 52·41 | 149 | 55 | 23·2 | 2 | 0·76 |
| 868 | 14 Capricorni $\tau^2$ .. | 5·7 | ... | 20 | 31 | 39·85 | 105 | 25 | 45·7 | 1 | 0·62 |
| 869 | S Capricorni Var. 2 | 9·0 | 2 | 20 | 33 | 57·28 | 109 | 32 | 21·9 | 2 | 0·64 |
| 870 | . .. .. | 8·7 | 1 | 20 | 36 | 32·01 | 148 | 23 | 33·1 | 1 | 0·76 |
| 871 | 50 Cygni α (*Deneb*) .. | 1·7 | ... | 20 | 36 | 47·68 | 45 | 12 | 16·4 | 3 | 0·69 |
| 872 | ... ... .. | 9·0 | 1 | 20 | 38 | 8·49 | 143 | 3 | 17·3 | 1 | 0·65 |
| 873 | 2 Aquarii ε .. .. | 4·5 | ... | 20 | 40 | 18·60 | 99 | [illegible] | 29·5 | 2 | 0·62 |
| 874 | .. .. .. .. | 10·5 | 1 | 20 | 41 | 8·55 | 105 | 18 | 21·6 | 1 | 0·64 |
| 875 | T Aquarii Var. 4 .. | 8·7 | 4 | 20 | 42 | 45·58 | 95 | 28 | 58·1 | 4 | 0·66 |

842.—χ Cygni Var. 2.—Period 406 days.—Range, 4th magnitude to invisibility.
843.—η Aquilæ Var. 1.—Period 7·176 days.—Range, 3·5 to 4·7 magnitude.
850.—Comparison star n f S Cygni Var. 4.
851.—R Capricorni Var. 1.—Period 347 days.—Range, 9th magnitude to invisibility.
852.—S Aquilæ Var. 4.—Period 147 days.—Range, 9th to 11·5 magnitude.
854.—Comparison star for Parthenope in 1862.
864.—R Ursæ Minoris Var. 1.—Variable from 5th to 11th magnitude in many years.
866.—3128 Carrington.
869.—S Capricorni Var. 2.—Supposed to change from 9th to 11th magnitude.
875.—T Aquarii Var. 4.—Period 203 days.—Range, 7th to 12·5 magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 841 | 53 Aquilæ α (*Altair*)... | + 2·8922 | − 0·0014 | + 0·036 | − 8·904 | − 0·374 | − 0·38 | 6802 |
| 842 | χ Cygni Var. 2 ... | + 2·3067 | + 0·0013 | ... | − 8·593 | − 0·297 | ... | ... |
| 843 | 55 Aquilæ η Var. 1 .. | + 3·0583 | − 0·0031 | − 0·001 | − 8·912 | − 0·393 | + 0·04 | 6811 |
| 844 | 60 Aquilæ β ... .. | + 2·9455 | − 0·0020 | + 0·002 | − 9·154 | − 0·378 | + 0·47 | 6833 |
| 845 | .. ... .. | + 4·8285 | − 0·0479 | ... | − 9·227 | − 0·621 | ... | .. |
| 846 | ... ... .. | + 4·8983 | − 0·0523 | ... | − 9·492 | − 0·626 | ... | ... |
| 847 | ... .. ... | + 5·2607 | − 0·0700 | ... | − 9·601 | − 0·668 | ... | ... |
| 848 | 9208 Taylor . .. | + 3·8157 | − 0·0175 | ... | − 9·701 | − 0·483 | ... | 6877 |
| 849 | λ Ursæ Minoris .. | − 57·2940 | − 29·8376 | − 0·035 | − 10·037 | + 7·238 | − 0·01 | 6909 |
| 850 | 20046 O. A. S. ... | + 1·2594 | − 0·0074 | .. | − 10·228 | − 0·154 | .. | ... |
| 851 | R Capricorni Var. 1 .. | + 3·3723 | − 0·0087 | ... | − 10·305 | − 0·418 | ... | . |
| 852 | S Aquilæ Var. 4 .. | + 2·7615 | − 0·0004 | ... | − 10·431 | − 0·340 | ... | ... |
| 853 | ... .. .. | + 2·8909 | − 0·0017 | ... | − 10·604 | − 0·354 | ... | ... |
| 854 | 20356 O. A. S. .. | + 3·4941 | − 0·0116 | ... | − 10·653 | − 0·427 | ... | ... |
| 855 | .. ... ... | + 4·9574 | − 0·0649 | ... | − 10·811 | − 0·604 | ... | ... |
| 856 | 6 Capricorni α² .. | + 3·3312 | − 0·0084 | + 0·001 | − 10·814 | − 0·403 | 0·00 | 6971 |
| 857 | 39045 Lalande ... | + 2·1327 | + 0·0017 | ... | − 10·929 | − 0·256 | ... | 6986 |
| 858 | α Pavonis ... .. | + 4·7954 | − 0·0594 | 0·000 | − 11·133 | − 0·574 | + 0·10 | 7004 |
| 859 | 8441 Lacaille... ... | + 3·7367 | − 0·0192 | ... | − 11·375 | − 0·444 | ... | ... |
| 860 | 11 Capricorni ρ .. | + 3·4322 | − 0·0115 | − 0·006 | − 11·582 | − 0·403 | + 0·01 | 7042 |
| 861 | 39525 Lalande .. | + 2·9974 | − 0·0031 | ... | − 11·855 | − 0·347 | ... | ... |
| 862 | ... ... .. | + 3·7178 | − 0·0200 | ... | − 12·015 | − 0·429 | ... | ... |
| 863 | ... ... .. | + 4·5089 | − 0·0515 | ... | − 12·059 | − 0·520 | ... | ... |
| 864 | 24 Cephei Rev. Var.. | − 44·4910 | − 23·9972 | ... | − 12·076 | + 5·186 | ... | 71[illegible] |
| 865 | 143 R. P. L. ... .. | − 8·3554 | − 1·2022 | ... | − 12·188 | + 0·973 | ... | ... |
| 866 | ... ... ... | + 4·5261 | − 0·0535 | ... | − 12·193 | − 0·519 | ... | ... |
| 867 | ... ... ... | + 4·5982 | − 0·0712 | ... | − 12·270 | − 0·560 | ... | ... |
| 868 | 14 Capricorni τ² ... | + 3·3631 | − 0·0105 | − 0·002 | − 12·325 | − 0·382 | + 0·08 | 7127 |
| 869 | S Capricorni Var. 2 ... | + 3·4434 | − 0·0128 | ... | − 12·481 | − 0·385 | ... | ... |
| 870 | ... ... .. | + 4·7574 | − 0·0604 | ... | − 12·658 | − 0·533 | ... | ... |
| 871 | 50 Cygni α (*Deneb*).. | + 2·0433 | + 0·0021 | − 0·002 | − 12·675 | − 0·226 | 0·00 | 7171 |
| 872 | ... ... .. | + 4·4431 | − 0·0530 | ... | − 12·766 | − 0·495 | ... | ... |
| 873 | 2 Aquarii ε ... .. | + 3·2523 | − 0·0084 | − 0·001 | − 12·911 | − 0·357 | + 0·01 | 7196 |
| 874 | .. .. . | + 3·3512 | − 0·0109 | ... | − 12·967 | − 0·367 | ... | ... |
| 875 | T Aquarii Var. 4 .. | + 3·1724 | − 0·0066 | ... | − 13·076 | − 0·345 | ... | . |

858.—Proper Motions adopted from "*Stone's Catalogue.*"

*Mean Positions of Stars for 1864 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | *h.* | *m.* | *s.* | ° | ′ | ″ | | |
| 876 | 8571 Lacaille ... ... | 8·0 | 2 | 20 | 42 | 53·12 | 150 | 12 | 58·0 | 2 | 0·73 |
| 877 | 9633 Taylor ... ... | 7·4 | 2 | 20 | 44 | 34·19 | 101 | 56 | 47·2 | 2 | 0·69 |
| 878 | 6 Aquarii μ ... ... | 5·0 | ... | 20 | 45 | 19·11 | 99 | 29 | 29·2 | 2 | 0·70 |
| 879 | ... ... ... ... | 8·8 | 1 | 20 | 48 | 36·01 | 149 | 1 | 17·4 | 1 | 0·65 |
| 880 | 32 Vulpeculæ ... ... | 5·0 | ... | 20 | 48 | 45·82 | 62 | 27 | 29·5 | 9 | 0·70 |
| 881 | ... ... ... ... | 9·0 | 1 | 20 | 50 | 40·81 | 148 | 45 | 51·9 | 1 | 0·70 |
| 882 | 8635 Lacaille ... ... | 7·4 | 3 | 20 | 52 | 18·83 | 126 | 35 | 2·8 | 3 | 0·71 |
| 883 | 23 Capricorni θ ... ... | 5·0 | ... | 20 | 55 | 18·93 | 107 | 46 | 16·1 | 1 | 0·77 |
| 884 | R Vulpeculæ Var. 2 ... | 8·5 | 2 | 20 | 58 | 20·25 | 66 | 43 | 3·3 | 2 | 0·67 |
| 885 | ... ... ... ... | 9·2 | 1 | 20 | 58 | 35·34 | 148 | 52 | 36·7 | 1 | 0·75 |
| 886 | 9773 Taylor ... ... | 8·1 | 2 | 21 | 0 | 27·27 | 145 | 7 | 16·6 | 2 | 0·72 |
| 887 | 61 Cygni (1*st*) ... ... | 5·3 | ... | 21 | 0 | 48·17 | 51 | 55 | 4·3 | 3 | 0·67 |
| 888 | 13 Aquarii ν ... ... | 4·7 | ... | 21 | 2 | 10·85 | 101 | 55 | 14·0 | 2 | 0·70 |
| 889 | ... ... ... ... | 9·6 | 2 | 21 | 2 | 54·46 | 145 | 6 | 44·7 | 2 | 0·73 |
| 890 | 8712 Lacaille ... ... | 8·5 | 1 | 21 | 4 | 11·07 | 146 | 48 | 32·8 | 1 | 0·74 |
| 891 | 64 Cygni ζ ... ... | 3·5 | ... | 21 | 7 | 8·89 | 60 | 19 | 47·3 | 9 | 0·69 |
| 892 | T Capricorni Var. 3 ... | 9·1 | 3 | 21 | 14 | 25·65 | 105 | 40 | 11·5 | 3 | 0·67 |
| 893 | 5 Cephei α (*Alderamin*) ... | 2·7 | ... | 21 | 15 | 19·93 | 27 | 50 | 24·9 | 3 | 0·69 |
| 894 | 9931 Taylor ... ... | 6·7 | 3 | 21 | 18 | 41·84 | 142 | 53 | 23·1 | 3 | 0·73 |
| 895 | ... ... ... ... | 8·2 | 1 | 21 | 20 | 5·57 | 150 | 47 | 50·8 | 1 | 0·77 |
| 896 | 22 Aquarii β ... ... | 3·0 | ... | 21 | 24 | 23·81 | 96 | 10 | 4·8 | 14 | 0·69 |
| 897 | ... ... ... ... | 7·9 | 1 | 21 | 25 | 49·17 | 140 | 23 | 25·6 | 1 | 0·70 |
| 898 | 8 Cephei β ... ... | 3·3 | ... | 21 | 26 | 53·87 | 20 | 2 | 9·1 | 3 | 0·69 |
| 899 | ... ... .. ... | 9·5 | 1 | 21 | 27 | 4·39 | 132 | 38 | 18·9 | 1 | 0·74 |
| 900 | ... ... ... ... | 9·3 | 1 | 21 | 28 | 50·12 | 134 | 4 | 22·2 | 1 | 0·74 |
| 901 | ... ... ... ... | 9·0 | 2 | 21 | 29 | 29·23 | 134 | 2 | 30·3 | 2 | 0·76 |
| 902 | .. ... ... ... | 9·0 | 1 | 21 | 29 | 53·40 | 98 | 25 | 25·9 | 1 | 0·77 |
| 903 | 23 Aquarii ξ ... ... | 5·3 | ... | 21 | 30 | 30·57 | 98 | 27 | 44·8 | 3 | 0·68 |
| 904 | 10032 Taylor ... ... | 6·4 | 1 | 21 | 30 | 41·50 | 142 | 58 | 15·0 | 1 | 0·68 |
| 905 | 10065 Taylor ... ... | 6·4 | 1 | 21 | 34 | 27·98 | 145 | 7 | 8·3 | 1 | 0·70 |
| 906 | ... ... ... ... | 9·1 | 2 | 21 | 34 | 41·54 | 134 | 0 | 27·2 | 2 | 0·74 |
| 907 | 8 Pegasi ε ... ... | 2·5 | ... | 21 | 37 | 30·34 | 80 | 44 | 50·1 | 10 | 0·74 |
| 908 | 10126 Taylor ... ... | 7·0 | 1 | 21 | 40 | 59·24 | 137 | 14 | 24·3 | 1 | 0·74 |
| 909 | XXI 975 W. B. E. .. | 9·0 | 3 | 21 | 41 | 9·82 | 97 | 19 | 45·6 | 3 | 0·65 |
| 910 | ... ... ... ... | 9·1 | 2 | 21 | 42 | 52·98 | 132 | 31 | 26·0 | 2 | 0·75 |

884.—R Vulpeculæ Var. 2.—Period 138 days.—Range, 8th to 13th magnitude.
892.—T Capricorni Var. 3.—Period 269 days.—Range, 9th magnitude to invisibility.
909.—Comparison star for Ariadne in 1864.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. Annual Precession. | In Right Ascension. Secular Variation. | In Right Ascension. Proper Motion. | In Polar Distance. Annual Precession. | In Polar Distance. Secular Variation. | In Polar Distance. Proper Motion. | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | s | s | s | " | " | " | |
| 876 | 8571 Lacaille .. | + 4·3426 | − 0·0757 | ... | − 13·084 | − 0·529 | .. | ... |
| 877 | 9633 Taylor ... ... | + 3·2848 | − 0·0093 | ... | − 13·195 | − 0·355 | ... | 7232 |
| 878 | 6 Aquarii μ ... .. | + 3·2399 | − 0·0083 | 0·000 | − 13·244 | − 0·349 | + 0·04 | 7239 |
| 879 | ... ... ... | + 4·7231 | − 0·0745 | ... | − 13·458 | − 0·505 | ... | ... |
| 880 | 32 Vulpeculæ ... | + 2·5534 | + 0·0026 | − 0·002 | − 13·460 | − 0·270 | 0·00 | 7256 |
| 881 | ... ... ... | + 4·0931 | − 0·0739 | ... | − 13·593 | − 0·497 | ... | ... |
| 882 | 8635 Lacaille... .. | + 3·7969 | − 0·0272 | ... | − 13·607 | − 0·398 | ... | ... |
| 883 | 23 Capricorni θ ... | + 3·3771 | − 0·0129 | + 0·004 | − 14·077 | − 0·345 | + 0·05 | 7322 |
| 884 | R Vulpeculæ Var. 2... | + 2·6623 | + 0·0022 | ... | − 14·078 | − 0·371 | ... | ... |
| 885 | ... ... ... | + 4·6476 | − 0·0757 | ... | − 14·093 | − 0·476 | ... | ... |
| 886 | 9772 Taylor ... ... | + 4·4256 | − 0·0624 | ... | − 14·209 | − 0·449 | ... | ... |
| 887 | 61 Cygni (1st) .. | + 2·3337 | + 0·0044 | + 0·339 | − 14·234 | − 0·233 | − 3·22 | 7236 |
| 888 | 13 Aquarii ν ... ... | + 3·2698 | − 0·0098 | + 0·001 | − 14·316 | − 0·328 | + 0·01 | 7344 |
| 889 | ... ... ... | + 4·4003 | − 0·0626 | ... | − 14·360 | − 0·443 | | ... |
| 890 | 8712 Lacaille .. | + 4·4207 | − 0·0[illegible] | ... | − 14·438 | − 0·448 | ... | |
| 891 | 64 Cygni ζ ... ... | + 2·5505 | + 0·0038 | − 0·003 | − 14·617 | − 0·248 | + 0·07 | 7368 |
| 892 | T Capricorni Var. 3 . | + 3·3201 | − 0·0120 | ... | − 15·045 | − 0·314 | ... | |
| 893 | 5 Cephei α (*Alderamin*) | + 1·4162 | − 0·0071 | + 0·021 | − 15·098 | − 0·130 | − 0·01 | 7416 |
| 894 | 9931 Taylor ... ... | + 4·2157 | − 0·0578 | ... | − 15·290 | − 0·391 | . | 7443 |
| 895 | ... ... ... | + 4·6091 | − 0·0871 | ... | − 15·308 | − 0·425 | ... | |
| 896 | 22 Aquarii β... ... | + 3·1627 | − 0·0071 | − 0·001 | − 15·618 | − 0·292 | 0·00 | 7478 |
| 897 | ... ... ... | + 4·0738 | − 0·0516 | ... | − 15·685 | − 0·363 | | |
| 898 | 8 Cephei β .. .. | + 0·8010 | − 0·0045 | 0·000 | − 15·744 | − 0·065 | + 0·04 | 7469 |
| 899 | ... ... ... | + 3·8340 | − 0·0371 | ... | − 15·754 | − 0·339 | ... | ... |
| 900 | ... ... ... | + 3·8653 | − 0·0394 | ... | − 15·849 | − 0·338 | ... | ... |
| 901 | ... ... ... | + 3·8615 | − 0·0394 | ... | − 15·884 | − 0·337 | ... | |
| 902 | . ... ... | + 3·1927 | − 0·0082 | ... | − 15·906 | − 0·276 | | ... |
| 903 | 23 Aquarii 1... .. | + 3·1929 | − 0·0083 | + 0·004 | − 15·937 | − 0·276 | + 0·04 | 7514 |
| 904 | 10032 Taylor ... | + 4·1468 | − 0·0584 | ... | − 15·948 | − 0·359 | ... | 7513 |
| 905 | 10065 Taylor... ... | + 4·2007 | − 0·0649 | ... | − 16·146 | − 0·357 | ... | 7540 |
| 906 | ... ... .. | + 3·8372 | − 0·0394 | ... | − 16·154 | − 0·324 | ... | |
| 907 | 8 Pegasi ε ... .. | + 2·9452 | − 0·0006 | + 0·008 | − 16·302 | − 0·242 | 0·00 | 7571 |
| 908 | 10126 Taylor... ... | + 3·9963 | − 0·0454 | ... | − 16·478 | − 0·317 | | 7591 |
| 909 | XXI 975 W. B. E. ... | + 3·1709 | − 0·0076 | ... | − 16·456 | − 0·258 | | ... |
| 910 | ... ... . | + 3·7627 | − 0·0372 | . | − 16·571 | − 0·302 | ... | ... |

*Mean Positions of Stars for 1864 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | *h.* | *m.* | *s.* | ° | ′ | ″ | | |
| 911 | 16 Pegasi .. ... ... | 5·5 | .. | 21 | 46 | 52·49 | 64 | 12 | 50·7 | 9 | 0·72 |
| 912 | 8958 Lacaille .. ... | 7·6 | 2 | 21 | 47 | 12·80 | 135 | 53 | 19·5 | 2 | 0·75 |
| 913 | ... .. ... .. | 9·3 | 2 | 21 | 47 | 31·81 | 133 | 12 | 30·1 | 2 | 0·75 |
| 914 | ... .. ... .. | 9·7 | 1 | 21 | 52 | 46·60 | 136 | 38 | 12·8 | 1 | 0·74 |
| 915 | κ² Indi ... ... ... | 6·5 | 1 | 21 | 56 | 15·98 | 150 | 17 | 30·7 | 1 | 0·85 |
| 916 | 31 Aquarii o ... ... | 4·7 | ... | 21 | 56 | 16·50 | 92 | 48 | 38·9 | 1 | 0·68 |
| 917 | 32 Aquarii... ... ... | 5·6 | 3 | 21 | 57 | 47·58 | 91 | 33 | 47·1 | 3 | 0·74 |
| 918 | .. ... ... ... | 7·9 | 2 | 21 | 58 | 11·91 | 136 | 2 | 33·8 | 2 | 0·75 |
| 919 | 34 Aquarii α ... ... | 3·0 | ... | 21 | 58 | 47·79 | 90 | 58 | 46·3 | 10 | 0·75 |
| 920 | α Gruis ... ... ... | 2·0 | ... | 21 | 59 | 38·79 | 137 | 37 | 5·5 | 1 | 0·72 |
| 921 | ... ... ... ... | 9·5 | 1 | 22 | 3 | 19·55 | 101 | 8 | 51·2 | 1 | 0·74 |
| 922 | XXII 98 W. B. E. ... | 8·0 | 3 | 22 | 6 | 21·85 | 90 | 25 | 47·5 | 3 | 0·68 |
| 923 | ... ... ... ... | 8·0 | 1 | 22 | 9 | 5·50 | 98 | 22 | 7·1 | 2 | 0·78 |
| 924 | .. ... ... .. | 9·0 | 1 | 22 | 9 | 7·81 | 146 | 27 | 23·2 | 1 | 0·77 |
| 925 | 43 Aquarii θ ... ... | 4·7 | ... | 22 | 9 | 39·29 | 98 | 27 | 33·9 | 10 | 0·77 |
| 926 | 48 Aqurii γ ... .. | 3·7 | ... | 22 | 14 | 37·87 | 92 | 4 | 18·8 | 3 | 0·82 |
| 927 | ... ... ... ... | 8·9 | 3 | 22 | 15 | 29·86 | 82 | 47 | 26·1 | 3 | 0·70 |
| 928 | ... ... ... ... | 9·4 | 2 | 22 | 16 | 51·21 | 135 | 55 | 25·2 | 2 | 0·75 |
| 929 | 55 Aquarii ζ ... ... | 6·1 | 3 | 22 | 21 | 49·60 | 90 | 42 | 52·0 | 3 | 0·72 |
| 930 | 57 Aquarii σ ... .. | 5·0 | ... | 22 | 23 | 26·76 | 101 | 22 | 23·2 | 1 | 0·70 |
| 931 | 150 R. P. L. ... ... | 5·5 | ... | 22 | 23 | 38·63 | 4 | 34 | 42·1 | 7 | 0·29 |
| 932 | 27 Cephei δ Var. 1 ... | 4·0 | ... | 22 | 24 | 7·58 | 32 | 16 | 51·0 | 1 | 0·76 |
| 933 | ... ... ... .. | 9·2 | 1 | 22 | 24 | 17·62 | 135 | 42 | 9·4 | 1 | 0·74 |
| 934 | ... ... ... ... | 9·7 | 1 | 22 | 24 | 39·71 | 146 | 50 | 35·2 | 1 | 0·77 |
| 935 | ... ... ... ... | 8·2 | 1 | 22 | 25 | 51·88 | 141 | 30 | 13·4 | 1 | 0·75 |
| 936 | 62 Aquarii η ... ... | 4·0 | ... | 22 | 28 | 21·97 | 90 | 49 | 4·0 | 9 | 0·77 |
| 937 | 9188 Lacaille ... ... | 7·0 | 2 | 22 | 29 | 53·53 | 130 | 33 | 43·2 | 2 | 0·53 |
| 938 | 10477 Taylor .. ... | 6·2 | 2 | 22 | 32 | 7·25 | 148 | 7 | 50·5 | 2 | 0·77 |
| 939 | 42 Pegasi ζ ... ... | 3·5 | .. | 22 | 34 | 40·74 | 79 | 52 | 30·9 | 5 | 0·75 |
| 940 | ... ... ... ... | 8·8 | 2 | 22 | 36 | 30·50 | 130 | 26 | 56·8 | 2 | 0·81 |
| 941 | 9226 Lacaille ... .. | 6·7 | 3 | 22 | 37 | 39·08 | 145 | 46 | 40·0 | 3 | 0·78 |
| 942 | XXII 844 W. B. E. ... | 9·0 | 2 | 22 | 40 | 34·14 | 57 | 48 | 41·1 | 2 | 0·7[illegible] |
| 943 | ... ... ... | 8·7 | 2 | 22 | 40 | 51·81 | 142 | 38 | 2·6 | 2 | 0·84 |
| 944 | ... ... ... ... | 8·0 | 2 | 23 | 44 | 41·47 | 130 | 1 | 17·2 | 2 | 0·81 |
| 945 | ... ... .. .. | 10·2 | 1 | 22 | 44 | 43·81 | 145 | 33 | 2·5 | 1 | 0·77 |

917.—922.—Comparison stars for Encke's Comet in 1862.
931.—3820 Groombridge.
932,—δ Cephei Var. 2.—Period 5.366 days.—Range, 3·7 to 4·8 magnitude.

*Observed with the Madras Meridian Circle in that Year.*

| Number | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 911 | 16 Pegasi ... .. | + 2·7251 | + 0·0052 | + 0·001 | − 16·706 | − 0·210 | + 0·01 | 7627 |
| 912 | 8958 Lacaille ... | + 3·8272 | − 0·0128 | .. | − 16·782 | − 0·290 | ... | .. |
| 913 | ... ... .. | + 3·3750 | − 0·0353 | ... | − 16·800 | − 0·292 | ... | ... |
| 914 | ... ... .. | + 3·8181 | − 0·0141 | ... | − 17·013 | − 0·286 | ... | ... |
| 915 | κ² Indi .. .. | − 4·2766 | − 0·0845 | ... | − 17·203 | − 0·314 | .. | 7669 |
| 916 | 31 Aquarii ο ... .. | + 3·1058 | − 0·0051 | + 0·001 | − 17·203 | − 0·226 | + 0·01 | 7672 |
| 917 | 32 Aquarii ... .. | + 3·0906 | − 0·0045 | + 0·003 | − 17·271 | − 0·222 | + 0·03 | 7685 |
| 918 | ... ... ... | + 3·7748 | − 0·0130 | ... | − 17·290 | − 0·272 | ... | ... |
| 919 | 34 Aquarii α ... .. | + 3·0836 | − 0·0041 | − 0·003 | − 17·316 | − 0·219 | + 0·02 | 7688 |
| 920 | α Gruis ... .. | + 3·8065 | − 0·0157 | + 0·011 | − 17·353 | − 0·270 | + 0·13 | 7692 |
| 921 | ... .. ... | + 3·2005 | − 0·0093 | ... | − 17·512 | − 0·210 | ... | .. |
| 922 | XXII 98 W. B. E .. | + 3·0768 | − 0·0037 | ... | − 17·640 | − 0·205 | .. | ... |
| 923 | .. ... .. | + 3·1636 | − 0·0077 | ... | − 17·752 | − 0·207 | ... | ... |
| 924 | ... ... .. | + 4·0100 | − 0·0681 | ... | − 17·754 | − 0·264 | ... | ... |
| 925 | 43 Aquarii θ ... .. | + 3·1640 | − 0·0075 | + 0·006 | − 17·775 | − 0·205 | + 0·03 | 7773 |
| 926 | 48 Aquarii γ .. .. | + 3·0985 | − 0·0043 | + 0·007 | − 17·972 | − 0·192 | − 0·02 | 7796 |
| 927 | ... ... . | + 2·9975 | 0·0000 | .. | − 18·000 | − 0·185 | ... | ... |
| 928 | ... ... .. | + 3·6738 | − 0·0422 | ... | − 18·058 | − 0·235 | ... | ... |
| 929 | 55 Aquarii ζ ... ... | + 3·0790 | − 0·0033 | + 0·009 | − 18·243 | − 0·178 | − 0·03 | 7832 |
| 930 | 57 Aquarii σ ... .. | + 3·1821 | − 0·0058 | − 0·004 | − 18·301 | − 0·152 | − 0·05 | 7840 |
| 931 | 150 R. P. L ... .. | − 3·7427 | − 1·1361 | + 0·018 | − 18·308 | + 0·231 | − 0·05 | 7851 |
| 932 | 27 Cephei δ Var. 1 .. | + 2·2123 | + 0·0165 | + 0·002 | − 18·326 | − 0·123 | + 0·02 | 7848 |
| 933 | .. ... .. | + 3·6278 | − 0·0412 | ... | − 18·332 | − 0·206 | ... | ... |
| 934 | ... ... .. | + 3·8990 | − 0·0676 | ... | − 18·345 | − 0·221 | ... | ... |
| 935 | ... ... .. | + 3·7433 | − 0·0527 | ... | − 18·357 | − 0·210 | ... | ... |
| 936 | 62 Aquarii η ... .. | + 3·0794 | − 0·0031 | + 0·003 | − 18·474 | − 0·166 | + 0·06 | 7868 |
| 937 | 9188 Lacaille. . .. | + 3·5105 | − 0·0333 | ... | − 18·525 | − 0·188 | ... | ... |
| 938 | 10477 Taylor ... | + 3·8706 | − 0·0708 | ... | − 18·599 | − 0·208 | ... | 7880 |
| 939 | 42 Pegasi ζ . . .. | + 2·9851 | + 0·0023 | + 0·001 | − 18·682 | − 0·149 | 0·00 | [illegible] |
| 940 | .. .. .. | + 3·4782 | − 0·0327 | ... | − 18·739 | − 0·173 | ... | ... |
| 941 | 9226 Lacaille ... | + 3·7632 | − 0·0622 | ... | − 18·774 | − 0·155 | ... | ... |
| 942 | XXII 844 W. B. E ... | + 3·0547 | − 0·0013 | ... | − 18·864 | − 0·143 | ... | ... |
| 943 | .. ... .. | + 3·6646 | − 0·0534 | ... | − 18·872 | − 0·162 | ... | .. |
| 944 | .. .. | + 3·4344 | − 0·0317 | .. | − 18·982 | − 0·154 | ... | ... |
| 945 | ... ... .. | + 3·7007 | − 0·0604 | ... | − 18·983 | − 0·166 | .. | ... |

916.—Proper Motions from Mr. Stone's list "*Memoirs R. A. S.*" Vol. 33.
917.—Proper Motions adopted from "*Greenwich Catalogue.*"
920.—Proper Motions adopted from "*Stone's Catalogue.*"

*Mean Positions of Stars for 1864 January 1st,*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | *h.* | *m.* | *s.* | ° | ′ | ″ | | |
| 946 | ... ... ... ... | 8·2 | 1 | 22 | 44 | 50·43 | 148 | 34 | 33·0 | 2 | 0·73 |
| 947 | ... ... ... ... | 9·0 | 1 | 22 | 48 | 3·87 | 152 | 35 | 12·3 | 1 | 0·85 |
| 948 | ... ... ... ... | 9·0 | 2 | 22 | 49 | 13·15 | 135 | 27 | 53·3 | 2 | 0·84 |
| 949 | S Aquarii Var. 2 ... ... | ... | ... | 22 | 49 | 49·09 | 111 | 4 | 1·0 | 1 | 0·72 |
| 950 | 2 Piscis Aus. α (*Fomalhaut*) | 1·3 | ... | 22 | 50 | 7·75 | 120 | 20 | 32·8 | 7 | 0·82 |
| 951 | ... ... ... ... | 7·3 | 2 | 22 | 50 | 19·40 | 111 | 0 | 5·7 | 2 | 0·73 |
| 952 | ... ... ... ... | 8·9 | 1 | 22 | 51 | 26·12 | 151 | 33 | 15·5 | 2 | 0·81 |
| 953 | 9353 Lacaille ... .. | 5·9 | 1 | 22 | 56 | 36·00 | 144 | 41 | 38·0 | 1 | 0·76 |
| 954 | ... ... ... .. | 8·9 | 1 | 22 | 57 | 11·27 | 149 | 37 | 59·8 | 1 | 0·82 |
| 955 | 53 Pegasi β Var. 1 ... | 2·3 | ... | 22 | 57 | 11·01 | 62 | 39 | 16·9 | 1 | 0·76 |
| 956 | 54 Pegasi α (*Markab*) ... | 2·0 | ... | 22 | 57 | 59·18 | 75 | 31 | 34·6 | 4 | 0·77 |
| 957 | ... ... ... ... | 9·1 | 2 | 22 | 59 | 20·02 | 150 | 22 | 5·6 | 2 | 0·83 |
| 958 | 9372 Lacaille ... ... | 8·0 | 2 | 23 | 0 | 22·71 | 150 | 28 | 12·7 | 2 | 0·80 |
| 959 | 9377 Lacaille ... ... | 6·6 | 2 | 23 | 2 | 12·35 | 151 | 18 | 4·3 | 2 | 0·74 |
| 960 | ... ... ... ... | 9·5 | 2 | 23 | 4 | 18·63 | 130 | 49 | 15·1 | 2 | 0·77 |
| 961 | 9394 Lacaille ... ... | 8·1 | 3 | 23 | 5 | 9·76 | 145 | 50 | 37·8 | 3 | 0·82 |
| 962 | 6 Piscium γ ... ... | 4·3 | ... | 23 | 10 | 6·89 | 87 | 27 | 37·5 | 4 | 0·75 |
| 963 | ... ... ... ... | 9·8 | 1 | 23 | 11 | 5·52 | 151 | 15 | 41·8 | 1 | 0·81 |
| 964 | ... ... ... ... | 9·3 | 1 | 23 | 11 | 6·18 | 127 | 25 | 34·9 | 1 | 0·82 |
| 965 | .. ... ... ... | 8·6 | 1 | 23 | 11 | 18·58 | 136 | 54 | 21·5 | 1 | 0·86 |
| 966 | ... ... ... .. | 8·0 | 1 | 23 | 12 | 7·56 | 137 | 3 | 54·3 | 1 | 0·72 |
| 967 | ... ... . .. | 8·3 | 2 | 23 | 12 | 13·07 | 127 | 24 | 50·8 | 2 | 0·80 |
| 968 | 96 Aquarii ... . | 5·5 | 1 | 23 | 12 | 20·62 | 95 | 52 | 2·5 | 1 | 0·69 |
| 969 | .. ... ... .. | 8·5 | 4 | 23 | 15 | 17·25 | 130 | 46 | 15·1 | 4 | 0·82 |
| 970 | ... ... ... | 9·8 | 1 | 23 | 15 | 41·65 | 180 | 39 | 46·9 | 1 | 0·81 |
| 971 | ... ... .. | 10·0 | ... | 23 | 19 | 42·21 | 151 | 38 | 3·9 | 1 | 0·82 |
| 972 | 8 Piscium κ .. .. | 5·5 | ... | 23 | 19 | 57·63 | 89 | 29 | 20·0 | 8 | 0·79 |
| 973 | .. .. ... ... | 8·7 | 2 | 23 | 23 | 37·19 | 148 | 57 | 35·6 | 2 | 0·78 |
| 974 | .. .. .. | 9·9 | 2 | 23 | 25 | 29·88 | 129 | 51 | 59·5 | 2 | 0·81 |
| 975 | 10801 Taylor ... | 6·7 | 1 | 23 | 27 | 29·61 | 117 | 34 | [illegible] | 1 | 0·76 |
| 976 | ... ... . .. | 8·4 | 2 | 23 | 27 | 45·78 | 118 | 14 | 46·3 | 2 | 0·76 |
| 977 | 188 R. P. L. .. | 5·7 | ... | 23 | 27 | 49·90 | 3 | 26 | 31·6 | 5 | [illegible] |
| 978 | .. ... .. | 8·1 | 2 | 23 | 29 | 49·44 | 148 | 55 | 17·9 | 2 | 0·83 |
| 979 | ... | 8·3 | 1 | 23 | 30 | 21·69 | 148 | 56 | 42·9 | 1 | 0·82 |
| 980 | 17 Piscium ι | 4·5 | ... | 23 | 32 | 57·34 | 85 | 6 | 35·9 | 7 | 0·78 |

949.—S Aquarii Var. 2.—Period 279 days.—Range, 8th magnitude to invisibility.
955.—β Pegasi Var. 1.—(*Scheat*).—Period about 6 weeks.—Range 2·0 to 2·5 magnitude.
977.—4101 Groombridge.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. Annual Precession. | In Right Ascension. Secular Variation. | In Right Ascension. Proper Motion. | In Polar Distance. Annual Precession. | In Polar Distance. Secular Variation. | In Polar Distance. Proper Motion. | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | s | s | s | " | " | " | |
| 946 | ... ... .. | + 3·7760 | − 0·0697 | ... | − 18·987 | − 0·160 | ... | ... |
| 947 | ... ... .. | + 3·8680 | − 0·0854 | ... | − 19·075 | − 0·166 | ... | ... |
| 948 | ... ... .. | + 3·4851 | − 0·0388 | ... | − 19·106 | − 0·147 | ... | ... |
| 949 | S Aquarii Var. 2 .. | + 3·2274 | − 0·0140 | ... | − 19·122 | − 0·134 | ... | ... |
| 950 | 2 Piscis Australis α .. | + 3·3069 | − 0·0210 | + 0·022 | − 19·131 | − 0·136 | + 0·15 | 7992 |
| 951 | ... ... .. | + 3·2257 | − 0·0140 | ... | − 19·136 | − 0·133 | ... | ... |
| 952 | ... ... .. | + 3·7995 | − 0·0796 | ... | − 19·164 | − 0·155 | ... | ... |
| 953 | 9353 Lacaille .. | + 3·5878 | − 0·0550 | ... | − 19·298 | − 0·135 | ... | 8029 |
| 954 | ... ... | + 3·6897 | − 0·0705 | ... | − 19·307 | − 0·138 | ... | ... |
| 955 | 53 Pegasi β Var. 1 .. | + 2·8850 | + 0·0117 | + 0·014 | − 19·307 | − 0·106 | − 0·15 | 8032 |
| 956 | 54 Pegasi α (*Markab*) | + 2·9798 | + 0·0056 | + 0·003 | − 19·325 | − 0·107 | + 0·02 | 8034 |
| 957 | ... ... .. | + 3·6871 | − 0·0728 | ... | − 19·356 | − 0·133 | ... | ... |
| 958 | 9372 Lacaille ... | + 3·6792 | − 0·0727 | ... | − 19·380 | − 0·130 | ... | ... |
| 959 | 9377 Lacaille .. | + 3·6814 | − 0·0753 | ... | − 19·420 | − 0·126 | ... | 8061 |
| 960 | ... ... .. | + 3·3499 | − 0·0305 | ... | − 19·466 | − 0·109 | ... | ... |
| 961 | 9394 Lacaille ... | + 3·5391 | − 0·0571 | ... | − 19·483 | − 0·114 | ... | ... |
| 962 | 6 Piscium γ ... ... | + 3·0591 | + 0·0005 | + 0·017 | − 19·582 | − 0·087 | + 0·01 | 8105 |
| 963 | ... .. .. | + 3·5985 | − 0·0721 | ... | − 19·600 | − 0·108 | ... | ... |
| 964 | ... ... .. | + 3·2587 | − 0·0264 | ... | − 19·600 | − 0·093 | ... | ... |
| 965 | ... .. | + 3·3734 | − 0·0382 | ... | − 19·604 | − 0·098 | ... | ... |
| 966 | .. .. .. | + 3·3701 | − 0·0384 | ... | − 19·619 | − 0·094 | ... | ... |
| 967 | ... ... ... | + 3·2839 | − 0·0263 | ... | − 19·621 | − 0·087 | ... | ... |
| 968 | 96 Aquarii .. .. | + 3·1004 | − 0·0038 | + 0·011 | − 19·623 | − 0·085 | + 0·01 | 8119 |
| 969 | ... .. .. | + 3·2957 | − 0·0296 | ... | − 19·674 | − 0·085 | ... | ... |
| 970 | ... ... | + 3·2928 | − 0·0295 | ... | − 19·681 | − 0·084 | ... | ... |
| 971 | ... ... ... | + 3·5052 | − 0·0703 | ... | − 19·745 | − 0·081 | ... | ... |
| 972 | 8 Piscium κ ... ... | + 3·0609 | 0·0000 | + 0·005 | − 19·750 | − 0·060 | + 0·12 | 81[illegible] |
| 973 | ... ... ... | + 3·4232 | − 0·0605 | ... | − 19·808 | − 0·070 | ... | ... |
| 974 | ... .. | + 3·2306 | − 0·0275 | ... | − 19·828 | − 0·062 | ... | ... |
| 975 | 10804 Taylor ... | + 3·3696 | − 0·0553 | ... | − 19·833 | − 0·060 | ... | 8208 |
| 976 | .. ... .. | + 3·3749 | − 0·0572 | ... | − 19·857 | − 0·060 | ... | ... |
| 977 | 158 R. P. L. ... .. | − 0·0367 | − 0·5004 | + 0·084 | − 19·858 | + 0·010 | − 0·01 | 8213 |
| 978 | .. ... .. | + 3·3633 | − 0·0583 | ... | − 19·892 | − 0·055 | ... | ... |
| 979 | ... ... . | + 3·3579 | − 0·0583 | ... | − 19·886 | − 0·064 | ... | ... |
| 980 | 17 Piscium ι ... .. | + 3·0585 | + 0·0030 | + 0·025 | − 19·916 | − 0·042 | + 0·45 | 8223 |

955.—9[illegible]8.—Proper Motions adopted from "Gree[illegible]h Ca[illegible]gue."

*Mean Positions of Stars for 1864 January 1st.*

| Number. | Star. | Magnitude. | Estimations. | Mean Right Ascension. | | | Mean Polar Distance. | | | Observations. | Fraction of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | h. | m. | s. | ° | ′ | ″ | | |
| 981 | 35 Cephei γ ... ... | 3·3 | ... | 23 | 33 | 47·83 | 13 | 7 | 37·5 | 3 | 0·80 |
| 982 | ... ... ... ... | 9·2 | 1 | 23 | 34 | 20·29 | 147 | 27 | 26·3 | 1 | 0·82 |
| 983 | ... ... ... ... | 8·0 | 1 | 23 | 35 | 11·20 | 148 | 42 | 58·3 | 1 | 0·86 |
| 984 | ... ... ... ... | 9·2 | 2 | 23 | 36 | 46·75 | 106 | 2 | 18·8 | 2 | 0·75 |
| 985 | 9583 Lacaille ... ... | 8·7 | 2 | 23 | 38 | 50·59 | 128 | 43 | 53·6 | 2 | 0·79 |
| 986 | ... ... ... ... | 9·7 | 1 | 23 | 41 | 4·67 | 128 | 46 | 38·4 | 1 | 0·82 |
| 987 | δ Sculptoris ... ... | 4·5 | ... | 23 | 41 | 50·21 | 118 | 52 | 56·8 | 11 | 0·82 |
| 988 | ... ... ... ... | 8·5 | 1 | 24 | 41 | 58·37 | 142 | 4 | 25·9 | 1 | 0·71 |
| 989 | ... ... ... ... | 9·4 | 1 | 23 | 42 | 41·88 | 150 | 54 | 3·2 | 1 | 0·85 |
| 990 | ... ... ... ... | 9·4 | 2 | 23 | 47 | 43·66 | 128 | 50 | 58·4 | 2 | 0·81 |
| 991 | 9641 Lacaille ... ... | 7·8 | 1 | 23 | 48 | 2·04 | 128 | 7 | 14·7 | 1 | 0·82 |
| 992 | ... ... ... ... | 8·5 | 1 | 23 | 49 | 57·25 | 148 | 53 | 24·9 | 1 | 0·86 |
| 993 | R Cassiopeæ Var. 3 ... | 9·5 | 1 | 23 | 51 | 30·50 | 39 | 22 | 8·6 | 1 | 0·82 |
| 994 | ... ... ... ... | 9·0 | 1 | 23 | 51 | 45·33 | 152 | 20 | 38·6 | 1 | 0·85 |
| 995 | 28 Piscium ω ... ... | 4·0 | .. | 23 | 52 | 19·68 | 83 | 53 | 23·5 | 11 | 0·80 |
| 996 | 9686 Lacaille ... ... | 6·9 | 3 | 23 | 53 | 32·44 | 143 | 51 | 15·3 | 3 | 0·78 |
| 997 | ... ... ... ... | 9·2 | 2 | 23 | 55 | 58·46 | 130 | 17 | 1·3 | 2 | 0·81 |
| 998 | ... ... ... ... | 8·0 | 1 | 23 | 56 | 7·64 | 124 | 7 | 46·0 | 1 | 0·86 |
| 999 | 10994 Taylor ... .. | 7·7 | 1 | 23 | 57 | 47·27 | 147 | 36 | 0·5 | 1 | 0·74 |
| 1000 | 9721 Lacaille ... ... | 6·9 | ... | 23 | 59 | 15·72 | 139 | 50 | 3·3 | 1 | 0·86 |

993.—R Cassiopeæ Var. 3.—Period 426 days.—Range, 5th magnitude to invisibility.

*Observed with the Madras Meridian Circle in that Year.*

| Number. | Star. | In Right Ascension. | | | In Polar Distance. | | | Number in B. A. C. |
|---|---|---|---|---|---|---|---|---|
| | | Annual Precession. | Secular Variation. | Proper Motion. | Annual Precession. | Secular Variation. | Proper Motion. | |
| | | s | s | s | " | " | " | |
| 981 | 35 Cephei γ ... ... | + 2·4179 | + 0·0738 | − 0·020 | − 19·924 | − 0·031 | − 0·15 | 8228 |
| 982 | ... ... ... | + 3·3061 | − 0·0532 | ... | − 19·930 | − 0·045 | ... | ... |
| 983 | ... ... ... | + 3·3099 | − 0·0561 | ... | − 19·937 | − 0·043 | ... | ... |
| 984 | ... ... ... | + 3·1109 | − 0·0081 | ... | − 19·953 | − 0·037 | ... | ... |
| 985 | 9583 Lacaille ... | + 3·1709 | − 0·0248 | ... | − 19·970 | − 0·034 | ... | ... |
| 986 | ... ... .. | + 3·1607 | − 0·0244 | ... | − 19·987 | − 0·029 | ... | ... |
| 987 | δ Sculptoris ... .. | + 3·1304 | − 0·0161 | + 0·009 | − 19·992 | − 0·026 | + 0·10 | 8275 |
| 988 | ... ... .. | + 3·2069 | − 0·0408 | ... | − 19·993 | − 0·028 | ... | ... |
| 989 | ... ... ... | + 3·2533 | − 0·0590 | ... | − 19·998 | − 0·027 | ... | ... |
| 990 | ... ... .. | + 3·1297 | − 0·0237 | ... | − 20·026 | − 0·015 | ... | ... |
| 991 | 9641 Lacaille .. | + 3·1269 | − 0·0230 | ... | − 20·027 | − 0·015 | ... | ... |
| 992 | ... ... ... | + 3·1692 | − 0·0512 | ... | − 20·036 | − 0·011 | ... | ... |
| 993 | R Cassiopeæ Var. 3. | + 3·0117 | + 0·0364 | ... | − 20·041 | − 0·007 | ... | ... |
| 994 | ... ... .. | + 3·1639 | − 0·0520 | ... | − 20·042 | − 0·008 | ... | ... |
| 995 | 28 Piscium ω ... | + 3·0672 | + 0·0047 | + 0·010 | − 20·044 | − 0·005 | + 0·13 | 8331 |
| 996 | 9686 Lacaille .. | + 3·1237 | − 0·0407 | ... | − 20·047 | − 0·004 | ... | ... |
| 997 | .. .. .. | + 3·0920 | − 0·0240 | ... | − 20·052 | + 0·001 | ... | ... |
| 998 | ... ... ... | + 3·0574 | − 0·0185 | ... | − 20·052 | + 0·001 | ... | ... |
| 999 | 10994 Taylor ... | + 3·0925 | − 0·0495 | ... | − 20·054 | + 0·005 | ... | ... |
| 1000 | 9721 Lacaille .. | + 3·0772 | − 0·0336 | ... | − 20·055 | + 0·008 | ... | ... |

987.—Proper Motions adopted from "*Stone's Catalogue.*"

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O. A. L. Pihl.

PORTUGAL.

Coimbra ... The Observatory.
Lisbon ... Royal Observatory.

RUSSIA.

Dorpat ... The Observatory.
Helsingfors ... The Observatory.
Kazan ... The Observatory.
Kharkoff ... The Observatory.
Kiev ... The Observatory.
Moscow ... The Observatory.
Prof. Th. Bredechin.
Dr. W. Ceraski.
Nicolaiew ... The Observatory.
Odessa ... The Observatory.
Plonsk ... Dr. Jedrzejewicz.
Pulkowa ... Central Imperial Observatory.
Prof. W. Dollen, Geh. Rath.
Prof. M. Nyren.
Dr. H. Struve.
Prof. O. W. von Struve, Geh. Rath.
St. Petersburg ... Imperial Academy of Sciences.
Observatory of Academy of Sciences
Dr. J. O. Backlund.
Prof. S. von Glasenapp.
Taschkent ... The Observatory
Warsaw ... The Observatory.
Wilna ... The Observatory.

SPAIN.

Madrid ... Royal Observatory
San Fernando ... Marine Observatory.

STRAITS SETTLEMENTS.

Singapore ... Surveyor General.

SWEDEN.

Lund ... The Observatory.
Dr. N. C. Duner.
Dr. F. Engstrom.
Prof. A. Moller.
Stockholm ... Royal Academy of Sciences
Upsala ... Prof. H. Gylden.
The Observatory.
Prof. H. Schultz.
Dr. H. Thalen.

SWITZERLAND

Geneva ... The Observatory.
Prof. E. Gautier.
Neuchatel ... The Observatory.
Vevey ... Prof. F. F. E. Brunnow
Zurich ... The Observatory
Prof. R. Wolf.

UNITED KINGDOM (*ENGLAND*.)

Blackheath ... A. M. Downing, M.A.
E. Dunkin, F.R.S.
J. Glaisher, F.R.S.
W. Thynne Lynn, B.A.
Birkenhead ... Bidston Observatory.
Bocking ... E. B. Knobel.
Burton ... W. F. Denning.
Cambridge ... The Observatory.
Prof. J. C. Adams, F.R.S.
Prof. A. Cayley, F.R.S.
J. W. L. Glaisher, F.R.S.
Prof. J. Stokes, F.R.S.
Chepstow ... E. J. Lowe, F.R.S.
Collingwood ... Lieut.-Col. J. Herschel, R.E., F.R.S.
Cuckfield ... G. Knott, LL.B.
Durham ... The Observatory
Ealing ... Lieut-Gen. J. F. Tennant, R.E., C.I.E., F.R.S.
A. A. Common, F.R.S.
Eastbourne ... G. F. Chambers.
Gateshead ... R. S. Newall, F.R.S.
Greenwich ... Royal Observatory.
Sir G. B. Airy, K.C.B., F.R.S.
W. H. M. Christie, F.R.S., Astronomer Royal.
E. W. Maunder
Harrow on the Hill ... Lieut-Col. G. L. Tupman, R.M.A.
Ipswich ... Col. Tomline.
Leyton ... J. G. Barclay.
Liverpool ... Astronomical Society.
T. E. Espin.
London ... Royal Society.
Royal Asiatic Society.
Royal Astronomical Society.
Royal Geographical Society
Royal Institution.
Royal Meteorological Society.
British Museum.

### UNITED KINGDOM (*ENGLAND.*)—(*continued.*)

| | |
|---|---|
| London ... | Meteorological Office. |
| | Nautical Almanac Office |
| | Science and Art Department, South Kensington. |
| | R. Bryant, B.A. |
| | Col. W. M. Campbell, R.E. |
| | Dr. W. De La Rue, F.R.S. |
| | Dr. W. Huggins, F.R.S. |
| | Cuthbert E. Peeke, M.A. |
| | E. B. Powell, C.S.I. |
| | R. A. Procter, B.A. |
| | A. O. Ranyard, M.A. |
| | Gen. R. Strachey, R.E., F.R.S. |
| | Gen. J. T. Walker, R.E., C.B., F.R.S. |
| Manchester ... | Literary and Philosophical Society. |
| | Owens College. |
| | Prof. A. Schuster, F.R.S. |
| | Prof. Balfour Stewart, F.R.S. |
| Maresfield ... | Captain W. Noble. |
| Newcastle on Tyne | Prof. A. S. Herschel. |
| Oxford ... | Museum Observatory. |
| | Radcliffe Observatory. |
| | Revd. C. Pritchard, F.R.S. |
| | E. J. Stone, M.A., F.R.S. |
| Richmond ... | Kew Observatory. |
| Rugby .. | Temple Observatory. |
| Southampton ... | Ordnance Survey Office. |
| Southport ... | J. Baxendell, F.R.S. |
| Twickenham ... | Dr. J. R. Hind, F.R.S. |
| Westgate on Sea.. | J. N. Lockyer, F.R.S. |
| Whalley ... | Stonyhurst College Observatory. |

### UNITED KINGDOM (*SCOTLAND.*)

| | |
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| Aberdeen ... | University Library. |
| Dun Echt .. | Earl of Crawford & Balcarres, F.R.S. |
| | Dr. Ralph Copeland. |
| Edinburgh . | Royal Observatory. |
| | Royal Society of Edinburgh |
| | University Library |
| | Prof. C. P. Smyth, Ast. Royal Scot. |
| Glasgow ... | The Observatory |
| | Prof. R. Grant, F.R.S. |
| | Sir W. Thompson, F.R.S. |

### UNITED KINGDOM (*IRELAND.*)

| | |
|---|---|
| Armagh | The Observatory |
| | Dr. J. L. E. Dreyer. |
| Collooney . | Col. E. H. Cooper |
| | A. Marth. |
| Dublin . | Royal Dublin Society |
| | Royal Observatory, Dunsink |
| Dublin ... | Sir R. S. Ball, Ast. Royal Ireland. |
| | G. Johnston Stoney, F.R.S. |
| Parsons Town ... | The Earl of Ross, F.R.S. |

(UNITED KINGDOM (*IRELAND.*)—(*continued.*) at the head of the second column)

### UNITED STATES (*AMERICA.*)

| | |
|---|---|
| Albany, N. Y. ... | Dudley Observatory. |
| | Prof. L. Boss. |
| Alleghany, Pen... | The Observatory. |
| | Prof. S. P. Longley. |
| Amherst, Mass... | Lawrence Observatory. |
| Ann Arbor, Mich. | The Observatory. |
| | J. M. Schaeberle. |
| Berkeley, Cal. .. | Lick Observatory |
| | Prof. E. S. Holden. |
| Boston ... | American Academy of Arts and Sciences. |
| Cambridge, Mass. | Harvard College Observatory |
| | T. C. Chandler. |
| | Dr. B. A. Gould. |
| | Prof. E. Pickering. |
| Chicago, Ill. ... | Dearborn Observatory. |
| Cincinnati, Ohio. | Mount Lookout Observatory |
| Clinton, N. Y ... | Prof. C. H. J. Peters. |
| Glasgow, Missouri | Morrison Observatory. |
| Madison, Wis. .. | Washburn Observatory |
| | S. W. Burnham. |
| Nashville, Tenn... | E. E. Barnard. |
| New Haven, Conn. | Academy of Arts and Sciences |
| | Dr. W. Elkin, |
| | Prof. H. A. Newton. |
| Phelps, N. Y. .. | W. R. Brooks, Red House Obs. |
| Philadelphia ... | American Philosophical Society |
| Princeton, N. J. | Prof. C. A. Young |
| San Francisco, Cal. | Prof. L. Swift, Warner Observatory |
| | Prof. G. Davidson |
| Washington ... | American Ephemeris Office |
| | National Academy of Sciences |
| | Signal Office, War Department |
| | Smithsonian Institute |
| | U. S. Coast and Geodetic Survey Office |
| | U. S. Naval Observatory |
| | Commander C. H. Davis, U.S.N. |
| | Admiral S. R. Franklin, U.S.N. |
| | Prof. E. Frisby |
| | Prof. Asaph Hall |
| | Lieut. S. C. [illegible], U.S.N. |
| | Prof. S. Newcomb. |
| Williamstown, Mass. | Prof. T. H. Safford. |